

PART 70 SIGNIFICANT SOURCE MODIFICATION OFFICE OF AIR QUALITY

**American Woodmark
5300 East Side Parkway
Gas City, Indiana 46933**

(herein known as the Permittee) is hereby authorized to construct and operate subject to the conditions contained herein, the emission units described in Section A (Source Summary) of this approval.

This approval is issued in accordance with 326 IAC 2 and 40 CFR Part 70 Appendix A and contains the conditions and provisions specified in 326 IAC 2-7 as required by 42 U.S.C. 7401, et. seq. (Clean Air Act as amended by the 1990 Clean Air Act Amendments), 40 CFR Part 70.6, IC 13-15 and IC 13-17.

Source Modification No.: 053-15248-00058	
Issued by: Paul Dubenetzky, Branch Chief Office of Air Quality	Issuance Date:

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SECTION A

SOURCE SUMMARY

This approval is based on information requested by the Indiana Department of Environmental Management (IDEM), Office of Air Quality (OAQ). The information describing the emission units contained in conditions A.1 through A.2 is descriptive information and does not constitute enforceable conditions. However, the Permittee should be aware that a physical change or a change in the method of operation that may render this descriptive information obsolete or inaccurate may trigger requirements for the Permittee to obtain additional permits or seek modification of this approval pursuant to 326 IAC 2, or change other applicable requirements presented in the permit application.

A.1 General Information [326 IAC 2-7-4(c)] [326 IAC 2-7-5(15)]

The Permittee owns and operates a stationary woodworking and surface coating source.

Responsible Official:	John M. Schroer
Source Address:	5300 East Side Parkway, Gas City, Indiana 46933
Mailing Address:	P.O. Box 11, Gas City, Indiana 46933
General Source Phone Number:	(765) 677-1690
SIC Code:	2434
County Location:	Grant
Source Location Status:	Attainment for all criteria pollutants
Source Status:	Part 70 Permit Program Minor Source under PSD Rules;

A.2 Emission Units and Pollution Control Equipment Summary [326 IAC 2-7-4(c)(3)] [326 IAC 2-7-5(15)]

This stationary source is approved to construct and operate the following emission units and pollution control devices:

- (a) One (1) Finishing Line 4, to be constructed in 2002, with a maximum capacity of 4,000 pounds of wood components per hour, consisting of the following units:
 - (1) Four (4) roll coaters, identified as EU 4-1, EU 4-2, EU 4-4, and EU 4-5, each with a maximum capacity of four (4) gallons of UV-cured coating per hour; and
 - (2) Two (2) curing lamps, identified as EU 4-3 and EU 4-6.
- (b) One (1) modification to the existing Finishing Line 2, originally constructed in 2000 and to be modified in 2002, with a maximum capacity of 4,000 pounds of wood components per hour, consisting of the following new units:
 - (1) Three (3) spray booths, identified as EU 2-12, EU 2-19, and EU 2-24, each with a maximum capacity of eight (8) gallons of coating per hour and one (1) gallon of cleaner per hour, all equipped with dry filters or water washes for particulate control, all vented to a common catalytic oxidizer that is also used to control emissions from the existing Finishing Line 1, originally constructed in 2000 and to be modified in 2002, with a total heat input capacity of nine (9) million British thermal units per hour;
 - (2) One (1) roll coater, identified as EU 2-14, with a maximum capacity of 0.5 gallons of coating per hour, with emissions vented back to spray booth EU 2-12;
 - (3) Three (3) ovens (hot water to air heat exchangers), identified as EU 2-16, EU 2-20, and EU 2-25, vented back to the spray booths EU 2-12, EU 2-19, and EU 2-24, respectively, each with cool down sections vented to the atmosphere; and

- (4) Woodworking operations associated with Finishing Line 2, with a maximum capacity of 4, 000 pounds of wood cabinet components per hour, all vent to baghouse BH-3 for particulate control.

A.3 Part 70 Permit Applicability [326 IAC 2-7-2]

This stationary source is required to have a Part 70 permit by 326 IAC 2-7-2 (Applicability) because:

- (a) It is a major source, as defined in 326 IAC 2-7-1(22); and
- (b) It is a source in a source category designated by the United States Environmental Protection Agency (U.S. EPA) under 40 CFR 70.3 (Part 70 - Applicability).

SECTION B GENERAL CONSTRUCTION CONDITIONS

B.1 Definitions [326 IAC 2-7-1]

Terms in this permit shall have the definition assigned to such terms in the referenced regulation. In the absence of definitions in the referenced regulation, the applicable definitions found in the statutes or regulations (IC 13-11, 326 IAC 1-2 and 326 IAC 2-7) shall prevail.

B.2 Effective Date of the Permit [IC13-15-5-3]

Pursuant to IC 13-15-5-3, this approval becomes effective upon its issuance.

B.3 Revocation of Permits [326 IAC 2-1.1-9(5)][326 IAC 2-7-10.5(i)]

Pursuant to 326 IAC 2-1.1-9(5)(Revocation of Permits), the Commissioner may revoke this approval if construction is not commenced within eighteen (18) months after receipt of this approval or if construction is suspended for a continuous period of one (1) year or more.

B.4 Significant Source Modification [326 IAC 2-7-10.5(h)]

This document shall also become the approval to operate pursuant to 326 IAC 2-7-10.5(h) when, prior to start of operation, the following requirements are met:

- (a) The attached affidavit of construction shall be submitted to the Office of Air Quality (OAQ), Permit Administration & Development Section, verifying that the emission units were constructed as proposed in the application. The emissions units covered in the Significant Source Modification approval may begin operating on the date the affidavit of construction is postmarked or hand delivered to IDEM if constructed as proposed.
- (b) If actual construction of the emissions units differs from the construction proposed in the application, the source may not begin operation until the source modification has been revised pursuant to 326 IAC 2-7-11 or 326 IAC 2-7-12 and an Operation Permit Validation Letter is issued.
- (c) If construction is completed in phases; i.e., the entire construction is not done continuously, a separate affidavit must be submitted for each phase of construction. Any permit conditions associated with operation start up dates such as stack testing for New Source Performance Standards (NSPS) shall be applicable to each individual phase.
- (d) The Permittee shall receive an Operation Permit Validation Letter from the Chief of the Permit Administration & Development Section and attach it to this document.
- (e) In the event that the Part 70 application is being processed at the same time as this application, the following additional procedures shall be followed for obtaining the right to operate:
 - (1) If the Part 70 draft permit has not gone on public notice, then the change/addition covered by the Significant Source Modification will be included in the Part 70 draft.
 - (2) If the Part 70 permit has gone through final EPA proposal and would be issued ahead of the Significant Source Modification, the Significant Source Modification will go through a concurrent 45-day EPA review. Then the Significant Source Modification will be incorporated into the final Part 70 permit at the time of issuance.
 - (3) If the Part 70 permit has gone through public notice, but has not gone through final EPA review and would be issued after the Significant Source Modification is

issued, then the Modification would be added to the proposed Part 70 permit, and the Title V permit will be issued after EPA's review.

B.5 NESHAP Reporting Requirement Part 63.807

Pursuant to the National Emission Standards for Hazardous Air Pollutants (NESHAP), Part 63, Subpart JJ, the source owner/operator is hereby advised of the requirement to report the following at the appropriate times:

- (a) Initial Notification per 40 CFR 63.9(b) through (d); and
- (b) Notification of compliance status as required by 40 CFR 63.9(h).

Reports are to be sent to:

Indiana Department of Environmental Management
Compliance Data Section, Office of Air Quality
100 North Senate Avenue, P. O. Box 6015
Indianapolis, IN 46206-6015

The application and enforcement of these standards have been delegated to the IDEM, OAQ. The requirements of 40 CFR Part 63 are also federally enforceable.

SECTION C GENERAL OPERATION CONDITIONS

C.1 Certification ~~[326 IAC 2-7-4(f)][326 IAC 2-7-6(1)][326 IAC 2-7-5(3)(C)]~~

- (a) Where specifically designated by this permit or required by an applicable requirement, any application form, report, or compliance certification submitted shall contain certification by a responsible official of truth, accuracy, and completeness. This certification shall state that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete.
- (b) One (1) certification shall be included, using the attached Certification Form, with each submittal requiring certification.
- (c) A responsible official is defined at 326 IAC 2-7-1(34).

C.2 Preventive Maintenance Plan ~~[326 IAC 2-7-5(1),(3) and (13)] [326 IAC 2-7-6(1) and (6)]~~ ~~[326 IAC 1-6-3]~~

- (a) If required by specific condition(s) in Section D of this permit, the Permittee shall prepare and maintain Preventive Maintenance Plans (PMPs) when operation begins, including the following information on each facility:
 - (1) Identification of the individual(s) responsible for inspecting, maintaining, and repairing emission control devices;
 - (2) A description of the items or conditions that will be inspected and the inspection schedule for said items or conditions; and
 - (3) Identification and quantification of the replacement parts that will be maintained in inventory for quick replacement.

If, due to circumstances beyond the Permittee's control, the PMPs cannot be prepared and maintained within the above time frame, the Permittee may extend the date an additional ninety (90) days provided the Permittee notifies:

Indiana Department of Environmental Management
Compliance Branch, Office of Air Quality
100 North Senate Avenue, P. O. Box 6015
Indianapolis, Indiana 46206-6015

The PMP and the PMP extension notification do not require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

- (b) The Permittee shall implement the PMPs as necessary to ensure that failure to implement a PMP does not cause or contribute to a violation of any limitation on emissions or potential to emit.
- (c) A copy of the PMPs shall be submitted to IDEM, OAQ, upon request and within a reasonable time, and shall be subject to review and approval by IDEM, OAQ. IDEM, OAQ, may require the Permittee to revise its PMPs whenever lack of proper maintenance causes or contributes to any violation. The PMP does not require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

- (d) Records of preventive maintenance shall be retained for a period of at least five (5) years. These records shall be kept at the source location for a minimum of three (3) years. The records may be stored elsewhere for the remaining two (2) years as long as they are available upon request. If the Commissioner makes a request for records to the Permittee, the Permittee shall furnish the records to the Commissioner within a reasonable time.

C.3 Permit Amendment or Modification [326 IAC 2-7-11] [326 IAC 2-7-12]

- (a) Permit amendments and modifications are governed by the requirements of 326 IAC 2-7-11 or 326 IAC 2-7-12 whenever the Permittee seeks to amend or modify this permit.
- (b) Any application requesting an amendment or modification of this permit shall be submitted to:

Indiana Department of Environmental Management
Permits Branch, Office of Air Quality
100 North Senate Avenue, P.O. Box 6015
Indianapolis, Indiana 46206-6015

Any such application shall be certified by the "responsible official" as defined by 326 IAC 2-7-1(34).

- (c) The Permittee may implement administrative amendment changes addressed in the request for an administrative amendment immediately upon submittal of the request [326 IAC 2-7-11(c)(3)].

C.4 Opacity [326 IAC 5-1]

Pursuant to 326 IAC 5-1-2 (Opacity Limitations), except as provided in 326 IAC 5-1-3 (Temporary Alternative Opacity Limitations), opacity shall meet the following, unless otherwise stated in this permit:

- (a) Opacity shall not exceed an average of forty percent (40%) in any one (1) six (6) minute averaging period as determined in 326 IAC 5-1-4.
- (b) Opacity shall not exceed sixty percent (60%) for more than a cumulative total of fifteen (15) minutes (sixty (60) readings as measured according to 40 CFR 60, Appendix A, Method 9 or fifteen (15) one (1) minute nonoverlapping integrated averages for a continuous opacity monitor) in a six (6) hour period.

C.5 Fugitive Dust Emissions [326 IAC 6-4]

The Permittee shall not allow fugitive dust to escape beyond the property line or boundaries of the property, right-of-way, or easement on which the source is located, in a manner that would violate 326 IAC 6-4 (Fugitive Dust Emissions). 326 IAC 6-4-2(4) is not federally enforceable.

C.6 Operation of Equipment [326 IAC 2-7-6(6)]

Except as otherwise provided by statute or rule, or in this permit, all air pollution control equipment listed in this permit and used to comply with an applicable requirement shall be operated at all times that the emission units vented to the control equipment are in operation.

C.7 Stack Height [326 IAC 1-7]

The Permittee shall comply with the applicable provisions of 326 IAC 1-7 (Stack Height Provisions), for all exhaust stacks through which a potential (before controls) of twenty-five (25) tons per year or more of particulate matter or sulfur dioxide is emitted by using good engineering practices (GEP) pursuant to 326 IAC 1-7-3.

Testing Requirements [326 IAC 2-7-6(1)]

C.8 Performance Testing [326 IAC 3-6][326 IAC 2-1.1-11]

- (a) Compliance testing on new emission units shall be conducted within 60 days after achieving the maximum production rate, but no later than 180 days after initial start-up, if specified in Section D of this approval. All testing shall be performed according to the provisions of 326 IAC 3-6 (Source Sampling Procedures), except as provided elsewhere in this approval, utilizing any applicable procedures and analysis methods specified in 40 CFR 51, 40 CFR 60, 40 CFR 61, 40 CFR 63, 40 CFR 75, or other procedures approved by IDEM, OAQ.

A test protocol, except as provided elsewhere in this approval, shall be submitted to:

Indiana Department of Environmental Management
Compliance Data Section, Office of Air Quality
100 North Senate Avenue, P. O. Box 6015
Indianapolis, Indiana 46206-6015

no later than thirty-five (35) days prior to the intended test date. The protocol submitted by the Permittee does not require certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

- (b) The Permittee shall notify IDEM, OAQ of the actual test date at least fourteen (14) days prior to the actual test date. The notification submitted by the Permittee does not require certification by the "responsible official" as defined by 326 IAC 2-7-1(34).
- (c) Pursuant to 326 IAC 3-6-4(b), all test reports must be received by IDEM, OAQ within forty-five (45) days after the completion of the testing. An extension may be granted by IDEM, OAQ, if the source submits to IDEM, OAQ, a reasonable written explanation within five (5) days prior to the end of the initial forty-five (45) day period.

Compliance Requirements [326 IAC 2-1.1-11]

C.9 Compliance Requirements [326 IAC 2-1.1-11]

The commissioner may require stack testing, monitoring, or reporting at any time to assure compliance with all applicable requirements. Any monitoring or testing shall be performed in accordance with 326 IAC 3 or other methods approved by the commissioner or the U. S. EPA.

Compliance Monitoring Requirements [326 IAC 2-7-5(1)] [326 IAC 2-7-6(1)]

C.10 Compliance Monitoring [326 IAC 2-7-5(3)] [326 IAC 2-7-6(1)]

If required by Section D, all monitoring and record keeping requirements shall be implemented when operation begins. The Permittee shall be responsible for installing any necessary equipment and initiating any required monitoring related to that equipment.

C.11 Pressure Gauge and Other Instrument Specifications [326 IAC 2-1.1-11] [326 IAC 2-7-5(3)] [326 IAC 2-7-6(1)]

- (a) Whenever a condition in this permit requires the measurement of pressure drop across any part of the unit or its control device, the gauge employed shall have a scale such that the expected normal reading shall be no less than twenty percent (20%) of full scale and be accurate within plus or minus two percent ($\pm 2\%$) of full scale reading.

- (b) Whenever a condition in this permit requires the measurement of the fan amperage, the instrument employed shall have a scale such that the expected normal reading shall be no less than twenty percent (20%) of full scale and be accurate within plus or minus two percent ($\pm 2\%$) of full scale reading.
- (c) The Permittee may request the IDEM, OAQ approve the use of a pressure gauge or other instrument that does not meet the above specifications provided the Permittee can demonstrate an alternative pressure gauge or other instrument specification will adequately ensure compliance with permit conditions requiring the measurement of pressure drop or other parameters.

Corrective Actions and Response Steps [326 IAC 2-7-5] [326 IAC 2-7-6]

C.12 Compliance Response Plan - Preparation, Implementation, Records, and Reports [326 IAC 2-7-5] [326 IAC 2-7-6]

- (a) The Permittee is required to prepare a Compliance Response Plan (CRP) for each compliance monitoring condition of this permit. A CRP shall be submitted to IDEM, OAQ upon request. The CRP shall be prepared within ninety (90) days after issuance of this permit by the Permittee, supplemented from time to time by the Permittee, maintained on site, and comprised of:
 - (1) Reasonable response steps that may be implemented in the event that a response step is needed pursuant to the requirements of Section D of this permit and an expected timeframe for taking reasonable response steps.
 - (2) If, at any time, the Permittee takes reasonable response steps that are not set forth in the Permittee's current Compliance Response Plan and the Permittee documents such response in accordance with subsection (e) below, the Permittee shall amend its Compliance Response Plan to include such response steps taken.
- (b) For each compliance monitoring condition of this permit, reasonable response steps shall be taken when indicated by the provisions of that compliance monitoring condition as follows:
 - (1) Reasonable response steps shall be taken as set forth in the Permittee's current Compliance Response Plan; or
 - (2) If none of the reasonable response steps listed in the Compliance Response Plan is applicable or responsive to the excursion, the Permittee shall devise and implement additional response steps as expeditiously as practical. Taking such additional response steps shall not be considered a deviation from this permit so long as the Permittee documents such response steps in accordance with this condition.
 - (3) If the Permittee determines that additional response steps would necessitate that the emissions unit or control device be shut down, the IDEM, OAQ shall be promptly notified of the expected date of the shut down, the status of the applicable compliance monitoring parameter with respect to normal, and the results of the actions taken up to the time of notification.
 - (4) Failure to take reasonable response steps shall constitute a violation of the permit.

- (c) The Permittee is not required to take any further response steps for any of the following reasons:
 - (1) A false reading occurs due to the malfunction of the monitoring equipment and prompt action was taken to correct the monitoring equipment.
 - (2) The Permittee has determined that the compliance monitoring parameters established in the permit conditions are technically inappropriate, has previously submitted a request for a minor permit modification to the permit, and such request has not been denied.
 - (3) An automatic measurement was taken when the process was not operating.
 - (4) The process has already returned or is returning to operating within "normal" parameters and no response steps are required.
- (d) When implementing reasonable steps in response to a compliance monitoring condition, if the Permittee determines that an exceedance of an emission limitation has occurred, the Permittee shall report such deviations pursuant to Section B-Deviations from Permit Requirements and Conditions.
- (e) The Permittee shall record all instances when response steps are taken. In the event of an emergency, the provisions of 326 IAC 2-7-16 (Emergency Provisions) requiring prompt corrective action to mitigate emissions shall prevail.
- (f) Except as otherwise provided by a rule or provided specifically in Section D, all monitoring as required in Section D shall be performed when the emission unit is operating, except for time necessary to perform quality assurance and maintenance activities.

C.13 Emergency Provisions [326 IAC 2-7-16]

- (a) An emergency, as defined in 326 IAC 2-7-1(12), is not an affirmative defense for an action brought for noncompliance with a federal or state health-based emission limitation.
- (b) An emergency, as defined in 326 IAC 2-7-1(12), constitutes an affirmative defense to an action brought for noncompliance with a technology-based emission limitation if the affirmative defense of an emergency is demonstrated through properly signed, contemporaneous operating logs or other relevant evidence that describes the following:
 - (1) An emergency occurred and the Permittee can, to the extent possible, identify the causes of the emergency;
 - (2) The permitted facility was, at the time being, properly operated;
 - (3) During the period of an emergency, the Permittee took all reasonable steps to minimize levels of emissions that exceeded the emission standards or other requirements in this permit;
 - (4) For each emergency lasting one (1) hour or more, the Permittee notified IDEM, OAQ, within four (4) daytime business hours after the beginning of the emergency, or after the emergency was discovered or reasonably should have been discovered;

Telephone Number: 1-800-451-6027 (ask for Office of Air Quality, Compliance Section), or

Telephone Number: 317-233-5674 (ask for Compliance Section)
Facsimile Number: 317-233-5967

- (5) For each emergency lasting one (1) hour or more, the Permittee submitted the attached Emergency Occurrence Report Form or its equivalent, either by mail or facsimile to:

Indiana Department of Environmental Management
Compliance Branch, Office of Air Quality
100 North Senate Avenue, P. O. Box 6015
Indianapolis, Indiana 46206-6015

within two (2) working days of the time when emission limitations were exceeded due to the emergency.

The notice fulfills the requirement of 326 IAC 2-7-5(3)(C)(ii) and must contain the following:

- (A) A description of the emergency;
- (B) any steps taken to mitigate the emissions; and
- (C) corrective actions taken.

The notification which shall be submitted by the Permittee does not require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

- (6) The Permittee immediately took all reasonable steps to correct the emergency.
- (c) In any enforcement proceeding, the Permittee seeking to establish the occurrence of an emergency has the burden of proof.
- (d) This emergency provision supersedes 326 IAC 1-6 (Malfunctions). This permit condition is in addition to any emergency or upset provision contained in any applicable requirement.
- (e) IDEM, OAQ, may require that the Preventive Maintenance Plans required under 326 IAC 2-7-4-(c)(10) be revised in response to an emergency.
- (f) Failure to notify IDEM, OAQ, by telephone or facsimile of an emergency lasting more than one (1) hour in accordance with (b)(4) and (5) of this condition shall constitute a violation of 326 IAC 2-7 and any other applicable rules.
- (g) If the emergency situation causes a deviation from a technology-based limit, the Permittee may continue to operate the affected emitting facilities during the emergency provided the Permittee immediately takes all reasonable steps to correct the emergency and minimize emissions.

C.14 Actions Related to Noncompliance Demonstrated by a Stack Test [326 IAC 2-7-5]
[326 IAC 2-7-6]

- (a) When the results of a stack test performed in conformance with Section C - Performance Testing, of this permit exceed the level specified in any condition of this permit, the Permittee shall take appropriate response actions. The Permittee shall submit a description of these response actions to IDEM, OAQ, within thirty (30) days of receipt of

the test results. The Permittee shall take appropriate action to minimize excess emissions from the affected facility while the response actions are being implemented.

- (b) A retest to demonstrate compliance shall be performed within one hundred twenty (120) days of receipt of the original test results. Should the Permittee demonstrate to IDEM, OAQ that retesting in one-hundred and twenty (120) days is not practicable, IDEM, OAQ may extend the retesting deadline.
- (c) IDEM, OAQ reserves the authority to take any actions allowed under law in response to noncompliant stack tests.

The documents submitted pursuant to this condition do require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

Record Keeping and Reporting Requirements [326 IAC 2-7-5(3)] [326 IAC 2-7-19]

C.15 General Record Keeping Requirements [326 IAC 2-7-5(3)][326 IAC 2-7-6]

- (a) Records of all required data, reports and support information shall be retained for a period of at least five (5) years from the date of monitoring sample, measurement, report, or application. These records shall be kept at the source location for a minimum of three (3) years. The records may be stored elsewhere for the remaining two (2) years as long as they are available upon request. If the Commissioner makes a request for records to the Permittee, the Permittee shall furnish the records to the Commissioner within a reasonable time.
- (b) Unless otherwise specified in this permit, all record keeping requirements not already legally required, shall be implemented within ninety (90) days of permit issuance.

C.16 General Reporting Requirements [326 IAC 2-7-5(3)(C)]

- (a) The reports required by conditions in Section D of this permit shall be submitted to:

Indiana Department of Environmental Management
Compliance Data Section, Office of Air Quality
100 North Senate Avenue, P. O. Box 6015
Indianapolis, Indiana 46206-6015
- (b) Unless otherwise specified in this permit, any notice, report, or other submission required by this permit shall be considered timely if the date postmarked on the envelope or certified mail receipt, or affixed by the shipper on the private shipping receipt, is on or before the date it is due. If the document is submitted by any other means, it shall be considered timely if received by IDEM, OAQ, on or before the date it is due.
- (c) Unless otherwise specified in this permit, all reports required in Section D of this permit shall be submitted within thirty (30) days of the end of the reporting period. All reports do require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).
- (d) The first report shall cover the period commencing on the date of issuance of this permit and ending on the last day of the reporting period. Reporting periods are based on calendar years.

SECTION D.1 FACILITY OPERATION CONDITIONS

Facility Description [326 IAC 2-7-5(15)]:

- (a) One (1) Finishing Line 4, to be constructed in 2002, with a maximum capacity of 4,000 pounds of wood components per hour, consisting of the following units:
 - (1) Four (4) roll coaters, identified as EU 4-1, EU 4-2, EU 4-4, and EU 4-5, each with a maximum capacity of four (4) gallons of UV-cured coating per hour; and
 - (2) Two (2) curing lamps, identified as EU 4-3 and EU 4-6;
- (b) One (1) modification to the existing Finishing Line 2, originally constructed in 2000 and to be modified in 2002, with a maximum capacity of 4,000 pounds of wood components per hour, consisting of the following new units:
 - (1) Three (3) spray booths, identified as EU 2-12, EU 2-19, and EU 2-24, each with a maximum capacity of eight (8) gallons of coating per hour and one (1) gallon of cleaner per hour, all equipped with dry filters or water washes for particulate control, all vented to a common catalytic oxidizer that is also used to control emissions from the existing Finishing Line 1, originally constructed in 2000 and to be modified in 2002, with a total heat input capacity of nine (9) million British thermal units per hour;
 - (2) One (1) roll coater, identified as EU 2-14, with a maximum capacity of 0.5 gallons of coating per hour, with emissions vented back to spray booth EU 2-12;
 - (3) Three (3) ovens (hot water to air heat exchangers), identified as EU 2-16, EU 2-20, and EU 2-25, vented back to the spray booths EU 2-12, EU 2-19, and EU 2-24, respectively, each with cool down sections vented to the atmosphere; and

(The information describing the process contained in this facility description box is descriptive information and does not constitute enforceable conditions.)

Emission Limitations and Standards [326 IAC 2-7-5(1)]

D.1.1 Volatile Organic Compounds (VOC) [326 IAC 8-2-12]

Pursuant to 326 IAC 8-2-12 (Wood Furniture and Cabinet Coating), the surface coating applied to wood furniture and cabinets shall utilize one of the following application methods:

- Airless Spray Application
- Air Assisted Airless Spray Application
- Electrostatic Spray Application
- Electrostatic Bell or Disc Application
- Heated Airless Spray Application
- Roller Coating
- Brush or Wipe Application
- Dip-and-Drain Application

High Volume Low Pressure (HVLP) Spray Application is an accepted alternative method of application for Air Assisted Airless Spray Application. HVLP spray is the technology used to apply coating to substrate by means of coating application equipment which operates between one-tenth (0.1) and ten (10) pounds per square inch gauge (psig) air pressure measured dynamically at the center of the air cap and at the air horns of the spray system.

D.1.2 VOC PSD Minor Limit [326 IAC 2-2][40 CFR 52.21]

The VOC input to the entire source shall be limited to less than one thousand seven hundred and seventeen (1,717) tons per twelve (12) consecutive month period including coatings, dilution solvents, and cleaning solvents. The following equation shall be used to calculate the total VOC input:

$$\text{VOC input (ton/year)} = \text{VOC input (ton) to Finishing Line 1} + \text{VOC input (ton) to Finishing Line 2} + (6.9 * \text{VOC input (ton) to Finishing Line 3}) + (6.9 * \text{VOC input (ton) to Finishing Line 4}) \leq 1,717 \text{ ton/yr}$$

This VOC input limit is equivalent to VOC emissions of two hundred forty-nine (249) tons per year from the four finishing lines and is structured such that, no matter what combination of finishing lines the 1,717 tons of VOC is inputted to, there is no possible way for emissions from the four finishing lines to exceed 249 tons per year. This limit is structured such that when including emissions from combustion, the source total VOC emissions are less than two hundred fifty (250) tons per year. Therefore the source and the modification are both not subject to 326 IAC 2-2 (Prevention of Significant Deterioration).

D.1.3 PM PSD Minor Limit [326 IAC 2-2][40 CFR 52.21]

The dry filters of EU 2-12 water washes of EU 2-19 and EU 2-24 for particulate control shall be in operation at all times that the spray booths are in operation. This limitation is structured such that when including emissions from the woodworking operation in Section D.2, the PM and PM₁₀ emissions from the whole source shall remain below two hundred and fifty (250) tons per year. Therefore, the entire source and the modification are both not subject to 326 IAC 2-2 (Prevention of Significant Deterioration).

D.1.4 General Provisions Relating to HAPs [326 IAC 20-1-1][40 CFR 63, Subpart A]

The provisions of 40 CFR 63, Subpart A - General Provisions, which are incorporated as 326 IAC 20-1-1, apply to the facility described in this section except when otherwise specified in 40 CFR 63, Subpart JJ.

D.1.5 Wood Furniture Manufacturing Operations NESHAP [326 IAC 20-14-1] [40 CFR Part 63, Subpart JJ]

- (a) The wood furniture manufacturing operations are subject to 40 CFR Part 63, Subpart JJ, which is incorporated by reference as 326 IAC 20-14-1, and shall be in compliance upon startup. A copy of this rule is attached.
 - (b) Pursuant to 40 CFR 63, Subpart JJ, the wood furniture coating operations shall comply with the following conditions:
 - (1) Limit the Volatile Hazardous Air Pollutants (VHAP) emissions from finishing operations as follows:
 - (A) Achieve a weighted average volatile hazardous air pollutant (VHAP) content across all coatings of eight-tenths (0.8) of a pound VHAP per pound solids; or
 - (B) Use compliant finishing materials in which all stains have a maximum VHAP content of (1.0) pound VHAP per pound solid, as applied.
- Use compliant finishing materials in which all washcoats, sealers, topcoats, basecoats and enamels have a maximum VHAP content of eight-tenths (0.8) pound VHAP per pound solid, as applied. Thinners used

for on-site formulation of washcoats, basecoats, and enamels have a three percent (3.0%) maximum VHAP content by weight. All other thinners have a ten percent (10.0%) maximum VHAP content by weight; or

(C) Use a control device to limit emissions to eight-tenths (0.8) of a pound VHAP per pound solids; or

(D) Use a combination of (A), (B), and (C).

(2) Limit VHAP emissions contact adhesives as follows:

(A) For foam adhesives used in products that meet the upholstered seating flammability requirements, the VHAP content shall not exceed two-tenths (0.2) of a pound VHAP per pound solids.

(B) For all other contact adhesives (except aerosols and contact adhesives applied to nonporous substrates) the VHAP content shall not exceed two-tenths (0.2) of a pound VHAP per pound solids.

(C) Use a control device to limit emissions to two-tenths (0.2) of a pound VHAP per pound solids.

(3) The strippable spray booth material shall have a maximum VOC content of eight-tenths (0.8) pounds VOC per pound solids.

D.1.6 Work Practice Standards [326 IAC 20-14-1] [40 CFR 63.803]

The owner or operator of an affected source subject to this subpart shall prepare and maintain a written work practice implementation plan within sixty (60) calendar days after the compliance date. The work practice implementation plan must define environmentally desirable work practices for each wood furniture manufacturing operation and at a minimum address each of the following work practice standards as defined under 40 CFR 63.803:

- (a) Operator training course.
- (b) Leak inspection and maintenance plan.
- (c) Cleaning and washoff solvent accounting system.
- (d) Chemical composition of cleaning and washoff solvents.
- (e) Spray booth cleaning.
- (f) Storage requirements.
- (g) Conventional air spray guns shall only be used under the circumstances defined under 40 CFR 63.803(h).
- (h) Line cleaning.
- (i) Gun cleaning.
- (j) Washoff operations.
- (k) Formulation assessment plan for finishing operations.

D.1.7 Particulate Matter (PM) [326 IAC 6-3-2]

The PM from the surface coating facilities shall not exceed the pound per hour emission rate established as E in the following formula:

Interpolation of the data for the process weight rate up to sixty thousand (60,000) pounds per hour shall be accomplished by use of the equation:

$$E = 4.10 P^{0.67}$$

where E = rate of emission in pounds per hour; and
P = process weight rate in tons per hour

D.1.8 Preventive Maintenance Plan [326 IAC 2-7-5(13)]

A Preventive Maintenance Plan, in accordance with Section B - Preventive Maintenance Plan, of this permit, is required for the facilities and their control devices.

Compliance Determination Requirements

D.1.9 Catalytic Oxidizer

- (a) The catalytic oxidizer, with a natural gas heat input of nine (9) MMBtu/hr, shall operate at all times when Finishing Line 1 and Finishing Line 2 are in operation in order to comply with 40 CFR 63, Subpart JJ and Condition D.1.2.
- (b) The catalytic oxidizer shall operate with an overall efficiency of not less than 85.5% at all times when Finishing Line 1 and Finishing Line 2 are in operation. This overall efficiency is necessary to ensure compliance with Condition D.1.2.

D.1.10 Particulate Matter

The dry filters for particulate control on spray booth EU 2-12 shall be in operation at all times that the spray booth is in operation in order to comply with Condition D.1.3 and D.1.7

D.1.11 Water Wash System

The water wash system for particulate control on spray booths EU 2-19 and EU 2-24 shall be in operation at all times that the spray booths are in operation in order to comply with Conditions D.1.3 and D.1.7.

D.1.12 Testing Requirements [326 IAC 2-7-6(1),(6)] [326 IAC 2-1.1-11]

- (a) Pursuant to 40 CFR 60.675(c) and 40 CFR 60.11, VOC and efficiency testing on the catalytic oxidizer controlling emissions from Finishing Line 1 and Finishing Line 2 to determine compliance with Conditions D.1.2 and D.1.9 shall be conducted within 60 days after achieving the maximum production rate, but no later than 180 days after initial start-up of the reconstructed Finishing Line 2. These tests shall be performed according to 326 IAC 3-6 (Source Sampling Procedures) utilizing U.S. EPA Methods 5 and 9 (40 CFR Part 60, Appendix A) or other methods as approved by the Commissioner.
- (b) Pursuant to 40 CFR 63, Subpart JJ, if the Permittee elects to demonstrate compliance using 63.804(a)(3) or 63.804(c)(2) or 63.804(d)(3) or 63.804(e)(2), performance testing on Finishing Line 2 must be conducted in accordance with 40 CFR 63, Subpart JJ and 326 IAC 3-6.
- (c) Within 60 days after achieving the maximum production rate, but no later than 180 days after initial start-up, the Permittee shall remove the catalyst from the catalytic oxidizer and have the vendor conduct a catalyst activity analysis. This test shall be repeated every twenty-four (24) months after the previous test. This test shall also be repeated each time a performance test is run on the thermal oxidizer. The catalyst shall be replaced each time that the vendor recommends replacement and each time that the oxidizer is found to not be achieving its required minimum efficiency due to catalyst failure.

D.1.13 Volatile Organic Compounds (VOC)

Compliance with the VOC content and usage limitations contained in Condition D.1.2 shall be determined pursuant to 326 IAC 8-1-4(a)(3) and 326 IAC 8-1-2(a) using formulation data supplied by the coating manufacturer. The following equation shall be used to determine compliance with the limit contained Condition D.1.2:

VOC input (ton/year) = VOC input (ton) to Finishing Line 1 + VOC input (ton) to Finishing Line 2 + (6.9 * VOC input (ton) to Finishing Line 3) + (6.9 * VOC input (ton) to Finishing Line 4) \leq 1,717 ton/yr

D.1.14 VOC Emissions

Compliance with Condition D.1.2 shall be demonstrated within 30 days of the end of each month based on the total volatile organic compound usage for the month.

Compliance Monitoring Requirements [326 IAC 2-7-6(1)] [326 IAC 2-7-5(1)]

D.1.15 Monitoring

- (a) Daily inspections shall be performed to verify the placement, integrity and particle loading of the filters on EU 2-12. The Compliance Response Plan shall be followed whenever a condition exists which should result in a response step. Failure to take response steps in accordance with Section C - Compliance Response Plan - Preparation, Implementation, Records, and Reports, shall be considered a violation of this permit.
- (b) Daily inspections shall be performed to verify the placement, integrity and operation of the water wash system on EU 2-19 and EU 2-24. The Compliance Response Plan shall be followed whenever a condition exists which should result in a response step. Failure to take response steps in accordance with Section C - Compliance Response Plan - Preparation, Implementation, Records, and Reports, shall be considered a violation of this permit.
- (c) Monthly inspections shall be performed of the coating emissions from the stack and the presence of overspray on the rooftops and the nearby ground. The Compliance Response Plan for this unit shall contain troubleshooting contingency and response steps for when a noticeable change in overspray emission, or evidence of overspray emission is observed. The Compliance Response Plan shall be followed whenever a condition exists which should result in a response step. Failure to take response steps in accordance with Section C - Compliance Response Plan - Preparation, Implementation, Records, and Reports, shall be considered a violation of this permit.
- (d) Additional inspections and preventive measures shall be performed as prescribed in the Preventive Maintenance Plan.

D.1.16 Catalytic Oxidizer

The catalytic oxidizer shall maintain a minimum zone operating temperature of 800°F or a minimum zone operating temperature and fan amperage as determined from the most recent compliant stack test, as approved by IDEM. The temperature shall correlate to at least an overall VOC control efficiency of 85.5%. The oxidizer shall capture at least 90% and catalytically oxidize at a minimum of 95% of the VOC from Finishing Line 1 and Finishing Line 2.

D.1.17 Parametric Monitoring

- (a) A continuous monitoring system shall be calibrated, maintained, and operated on the catalytic oxidizer for measuring operating temperature. The output of this system shall be recorded, and that temperature shall be greater than or equal to the temperature used to demonstrate compliance during the most recent compliance stack test.
- (b) The duct pressure or fan amperage shall be observed at least once per week when the catalytic oxidizer is in operation. This pressure or amperage shall be maintained with a range as established in most recent compliant stack test.

- (c) The Compliance Response Plan for this unit shall contain troubleshooting contingency and response steps for when the reading is outside the above mentioned range for any one reading. Failure to take response steps in accordance with Section C - Compliance Response Plan - Preparation, Implementation, Records, and Reports, shall be considered a violation of this permit.

D.1.18 Catalyst Replacement

The catalysts shall be replaced each time that the results of the vendor catalyst activity analysis required in Condition D.1.12(c), indicates replacement is necessary. The catalyst shall also be replaced when the oxidizer is found to not be achieving its required minimum efficiency due to catalyst failure.

Record Keeping and Reporting Requirements [326 IAC 2-7-5(3)] [326 IAC 2-7-19]

D.1.19 Record Keeping Requirements

- (a) To document compliance with Condition D.1.2, the Permittee shall maintain records in accordance with (1) through (8) below. Records maintained for (1) through (8) shall be taken monthly and shall be complete and sufficient to establish compliance with the VOC usage limits and/or the VOC emission limits established in Condition D.1.2.
 - (1) The amount and VOC content of each coating material and solvent used. Records shall include purchase orders, invoices, and material safety data sheets (MSDS) necessary to verify the type and amount used. Solvent usage records shall differentiate between those added to coatings and those used as cleanup solvents. Note: The VOC input to the uncontrolled lines shall be multiplied by a factor of 6.9 ($1/1 - \text{control efficiency} = 6.9$) in order to equate the uncontrolled solvent throughput to an equivalent controlled solvent throughput;
 - (2) A log of the dates of use;
 - (3) The cleanup solvent usage for each month;
 - (4) The total VOC usage for each month for each finishing line;
 - (5) The total VOC usage for the month using the following equation: $\text{VOC input (ton/mo)} = \text{VOC input (ton/mo) to Finishing Line 1} + \text{VOC input (ton/mo) to Finishing Line 2} + (6.9 * \text{VOC input (ton/mo) to Finishing Line 3}) + (6.9 * \text{VOC input (ton/mo) to Finishing Line 4})$.
 - (6) The weight of VOCs emitted for each compliance period;
 - (7) The continuous temperature records for the catalytic oxidizer and the temperature used to demonstrate compliance during the most recent compliance stack test; and
 - (8) Weekly records of the duct pressure or fan amperage.
- (b) To document compliance with Condition D.1.4, the Permittee shall maintain records in accordance with (1) through (5) below. Records maintained for (1) through (5) shall be complete and sufficient to establish compliance with the VHAP usage limits established in Condition D.1.5.
 - (1) Certified Product Data Sheet for each finishing material, thinner, contact adhesive and strippable booth coating.

- (2) The HAP content in pounds of VHAP per pounds of solids, as applied, for all finishing materials and contact adhesives used.
- (3) The VOC content in pounds of VOC per pounds of solids, as applied, for each strippable coating used.
- (4) The VHAP content in weight percent of each thinner used.
- (5) When the averaging compliance method is used, copies of the averaging calculations for each month as well as the data on the quantity of coating and thinners used to calculate the average.
- (c) To document compliance with Condition D.1.6, the Permittee shall maintain records demonstrating actions have been taken to fulfill the Work Practice Implementation Plan.
- (d) To document compliance with Condition D.1.12(c), the Permittee shall maintain records of the dates and results of catalyst activity tests.
- (e) To document compliance with Condition D.1.15, the Permittee shall maintain a log of weekly overspray observations, daily and monthly inspections, and those additional inspections prescribed by the Preventive Maintenance Plan.
- (f) To document compliance with Condition D.1.18, the Permittee shall maintain a log of the dates of catalyst replacement.
- (g) All records shall be maintained in accordance with Section C - General Record Keeping Requirements, of this permit.

D.1.20 Reporting Requirements

- (a) A quarterly summary of the information to document compliance with Condition D.1.2 shall be submitted to the address listed in Section C - General Reporting Requirements, of this permit, using the reporting forms located at the end of this permit, or their equivalent, within thirty (30) days after the end of the quarter being reported. The report submitted by the Permittee does require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).
- (b) An Initial Compliance Report to document compliance with Condition D.1.4 and the Certification form, shall be submitted within sixty (60) days following startup. The Initial Compliance Report must include data from the entire month that the compliance date falls.
- (c) Pursuant to 40 CFR 63, Subpart JJ, a semi-annual Continuous Compliance Report to document compliance with Condition D.1.5 and the Certification form, shall be submitted within thirty (30) days after the end of the six (6) months being reported.
 - (1) For the first year following the compliance date, the six (6) month period shall begin on the first day of the month after which the operation commences.
 - (2) Following the first year of reporting, the semi-annual Continuous Compliance Report shall be submitted on a calendar year basis with the reporting periods ending June 30 and December 31.
- (d) For use of the catalytic oxidizer to comply, the excess emissions and continuous monitoring system performance report and summary report required in 40 CFR 63.807(d).

- (e) The reports required in (b) and (c) of this condition shall be submitted to:

Indiana Department of Environmental Management
Compliance Data Section, Office of Air Quality
100 North Senate Avenue, P.O. Box 6015
Indianapolis, Indiana 46206-6015

and

United States Environmental Protection Agency, Region V
Air and Radiation Division, Air Enforcement Branch - Indiana (AE-17J)
77 West Jackson Boulevard
Chicago, Illinois 60604-3590

SECTION D.2 FACILITY OPERATION CONDITIONS

Facility Description [326 IAC 2-7-5(15)]:

- (b) One (1) modification to the existing Finishing Line 2, originally constructed in 2000 and to be modified in 2002, with a maximum capacity of 4,000 pounds of wood components per hour, consisting of the following new units:
- (4) Woodworking operations associated with Finishing Line 2, with a maximum capacity of 4,000 pounds of wood cabinet components per hour, all vent to baghouse BH-3 for particulate control.-1.

(The information describing the process contained in this facility description box is descriptive information and does not constitute enforceable conditions.)

Emission Limitations and Standards [326 IAC 2-7-5(1)]

D.2.1 Particulate Matter (PM) [326 IAC 6-3-2]

Pursuant to 326 IAC 6-3-2 (Process Operations), the particulate matter (PM) from the woodworking operations associated with Finishing Line 2 shall be limited to less than 6.52 pounds per hour when operating at a process weight rate of 4,000 pounds per hour. This limit was calculated using the following equation:

Interpolation of the data for the process weight rate up to sixty thousand (60,000) pounds per hour shall be accomplished by use of the equation:

$$E = 4.10 P^{0.67} \quad \text{where } E = \text{rate of emission in pounds per hour and} \\ P = \text{process weight rate in tons per hour}$$

D.2.2 PSD Minor Limit [326 IAC 2-2] [40 CFR 52.21]

BH-3 shall have a flow rate of less than 45,000 acfm, and an emission rate of less than 0.01 grains per dry standard cubic feet. These limits will result in a PM and PM₁₀ emission limit of less than 16.89 tons per year (3.86 pounds per hour) from the new woodworking operations associated with Finishing Line 2. These limitations are structured such that when including the emissions from the spray booths in Section D.1, the PM and PM₁₀ emissions from the entire source shall remain below two hundred and fifty (250) tons per year. Therefore, the entire source and the modification are both not subject to 326 IAC 2-2 (Prevention of Significant Deterioration).

D.2.3 Preventive Maintenance Plan [326 IAC 2-7-5(13)]

A Preventive Maintenance Plan, in accordance with Section B - Preventive Maintenance Plan, of this permit, is required for this facility and its control device.

Compliance Determination Requirements

D.2.4 Particulate Matter (PM)

In order to comply with Conditions D.2.1 and D.2.2, the baghouse for PM control shall be in operation and control emissions from the woodworking operations at all times that the woodworking operations are in operation.

Compliance Monitoring Requirements [326 IAC 2-7-6(1)] [326 IAC 2-7-5(1)]

D.2.5 Visible Emissions Notations

- (a) Daily visible emission notations of the woodworking stack exhaust shall be performed during normal daylight operations when exhausting to the atmosphere. A trained employee shall record whether emissions are normal or abnormal.
- (b) For processes operated continuously, "normal" means those conditions prevailing, or expected to prevail, eighty percent (80%) of the time the process is in operation, not counting startup or shut down time.
- (c) In the case of batch or discontinuous operations, readings shall be taken during that part of the operation that would normally be expected to cause the greatest emissions.
- (d) A trained employee is an employee who has worked at the plant at least one (1) month and has been trained in the appearance and characteristics of normal visible emissions for that specific process.
- (e) The Compliance Response Plan for this unit shall contain troubleshooting contingency and response steps for when an abnormal emission is observed. Failure to take response steps in accordance with Section C - Compliance Response Plan - Preparation, Implementation, Records, and Reports, shall be considered a violation of this permit.

D.2.6 Baghouse Inspections

An inspection shall be performed each calendar quarter of all bags controlling the woodworking operation when venting to the atmosphere. A baghouse inspection shall be performed within three months of redirecting vents to the atmosphere and every three months thereafter. Inspections are optional when venting to the indoors. All defective bags shall be replaced.

D.2.7 Broken or Failed Bag Detection

In the event that bag failure has been observed:

- (a) For multi-compartment units, the affected compartments will be shut down immediately until the failed units have been repaired or replaced. Operations may continue only if there are no visible emissions or if the event qualifies as an emergency and the Permittee satisfies the emergency provisions of this permit (Section B- Emergency Provisions). Within eight (8) business hours of the determination of failure, response steps according to the timetable described in the Compliance Response Plan shall be initiated. For any failure with corresponding response steps and timetable not described in the Compliance Response Plan, response steps shall be devised within eight (8) business hours of discovery of the failure and shall include a timetable for completion. Failure to take response steps in accordance with Section C - Compliance Response Plan - Preparation, Implementation, Records, and Reports, shall be considered a violation of this permit.
- (b) For single compartment baghouses, failed units and the associated process will be shut down immediately until the failed units have been repaired or replaced. Operations may continue only if the event qualifies as an emergency and the Permittee satisfies the requirements of the emergency provisions of this permit (Section B - Emergency Provisions).

Record Keeping and Reporting Requirement [326 IAC 2-7-5(3)] [326 IAC 2-7-19]

D.2.8 Record Keeping Requirements

- (a) To document compliance with Condition D.2.5, the Permittee shall maintain records of daily visible emission notations of the woodworking stack exhaust.

- (b) To document compliance with Condition D.2.6, the Permittee shall maintain records of the results of the inspections required under Condition D.2.6 and the dates the vents are redirected.
- (c) All records shall be maintained in accordance with Section C - General Record Keeping Requirements, of this permit.

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT OFFICE OF AIR QUALITY

PART 70 SOURCE MODIFICATION CERTIFICATION

Source Name: American Woodmark
Source Address: 5300 East Side Parkway, Indiana 46933
Mailing Address: P.O. Box 11, Gas City, Indiana 46933
Source Modification No.: 053-15248-00058

This certification shall be included when submitting monitoring, testing reports/results or other documents as required by this approval.

Please check what document is being certified:

- 9 Test Result (specify) _____
- 9 Report (specify) _____
- 9 Notification (specify) _____
- 9 Affidavit (specify) _____
- 9 Other (specify) _____

I certify that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete.

Signature:

Printed Name:

Title/Position:

Date:

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

OFFICE OF AIR QUALITY

COMPLIANCE DATA SECTION

Part 70 Source Modification Quarterly Report

Source Name: American Woodmark
Source Address: 5300 East Side Parkway, Indiana 46933
Mailing Address: P.O. Box 11, Gas City, Indiana 46933
Source Modification No.: 053-15248-00058
Facility: Finishing Line 1, 2, 3, 4, combined
Parameter: VOC input
Limit: Less than 1,717 tons per year
VOC input (ton/year) = VOC input (ton) to Finishing Line 1 + VOC input (ton) to Finishing Line 2 + (6.9 * VOC input (ton) to Finishing Line 3) + (6.9 * VOC input (ton) to Finishing Line 4) ≤ 1,717 ton/yr

YEAR: _____

Month	Finishing Line	Column 1	Column 2	Column 1 + Column 2
		This Month	Previous 11 Months	12 Month Total
Month 1	Finishing Line 1			
	Finishing Line 2			
	Finishing Line 3			
	Finishing Line 4			
	Total*			
Month 2	Finishing Line 1			
	Finishing Line 2			
	Finishing Line 3			
	Finishing Line 4			
	Total*			
Month 3	Finishing Line 1			
	Finishing Line 2			
	Finishing Line 3			
	Finishing Line 4			
	Total*			

* Total = VOC input (ton) to Finishing Line 1 + VOC input (ton) to Finishing Line 2 + (6.9 * VOC input (ton) to Finishing Line 3) + (6.9

* VOC input (ton) to Finishing Line 4)

9 No deviation occurred in this quarter.

9 Deviation/s occurred in this quarter.
Deviation has been reported on: _____

Submitted by: _____

Title / Position: _____
Signature: _____
Date: _____
Phone: _____

Attach a signed certification to complete this report.

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT OFFICE OF AIR QUALITY COMPLIANCE DATA SECTION

PART 70 SOURCE MODIFICATION OPERATING PERMIT

Semi-Annual Report

VOC and VHAP usage - Wood Furniture NESHAP

Source Name: American Woodmark
Source Address: 5300 East Side Parkway, Gas City, Indiana 46933
Mailing Address: P.O. Box 11, Gas City, Indiana 46933
Source Modification No.: 053-15248-00058
Facility: Surface Coating
Parameter: VOC and VHAPs - NESHAP
Limit:
(1) Finishing operations -1.0 lb VHAP/lb Solids
(2) Thinners used for on-site formulation of washcoats, basecoats and enamels - 3% VHAP content by weight
(3) All other thinner mixtures - 10% VHAP content by weight
(4) Foam adhesives meeting the upholstered seating flammability requirements - 1.8 lb VHAP/lb Solids
(5) All other contact adhesives - 1.0 lb VHAP/lb Solids
(6) Strippable spray booth material - 0.8 pounds VOC per pound solids

YEAR: _____

Month	Finishing Operations (lb VHAP/lb Solid)	Thinners used for on-site formulation (% by weight)	All other thinner mixtures (% by weight)	Foam adhesives (upholstered) (lb VHAP/lb Solid)	Contact adhesives (lb VHAP/lb Solid)	Strippable spray booth material (lb VOC/lb Solid)
1						
2						
3						
4						
5						
6						

9 No deviation occurred in this six month period.

9 Deviation/s occurred in this six month period.

Deviation has been reported on: _____

Submitted by: _____
Title/Position: _____
Signature: _____
Date: _____
Phone: _____

Attach a signed certification to complete this report.

Indiana Department of Environmental Management Office of Air Quality

Addendum to the Technical Support Document for a Part 70 Significant Source Modification

Source Background and Description

Source Name:	American Woodmark
Source Location:	5300 East Side Parkway, Gas City, IN 46933
County:	Grant
SIC Code:	2434
Operation Permit No.:	T053-14234-00058
Operation Permit Issuance Date:	Not issued yet
Significant Source Modification No.:	T053-15248-00058
Permit Reviewer:	ERG/KC

On March 25, 2002, the Office of Air Quality (OAQ) had a notice published in the Marion Chronicle Tribune in Marion, Indiana, stating that American Woodmark had applied for a Part 70 Significant Source Modification to reconstruct Line 2 and construct a new Line 4. The notice also stated that OAQ proposed to issue a permit for this operation and provided information on how the public could review the proposed permit and other documentation. Finally, the notice informed interested parties that there was a period of thirty (30) days to provide comments on whether or not this permit should be issued as proposed.

On April 19, 2002, the EPA submitted comments on the proposed Part 70 Significant Source Modification. The following is a summary of the comments. In the responses, additions to the permit are bolded for emphasis; the language with a line through it has been deleted.

Comment 1:

The unit description for Finishing Line 2 states "...all vented to a common catalytic oxidizer that is also used to control emissions from the existing Finishing Line 1, originally constructed in 2000 and to be modified in 2002, with a total heat capacity of nine (9) million British thermal units per hour." The unit description for Finishing Line 1 in MSOP053-11188-00058 states "All paint booths are vented to a common thermal oxidizer with a total heat capacity of 9 MMBtu/hr." Please compare the control device descriptions and make any appropriate changes or clarify the differences.

Response to Comment 1:

When the initial application for construction of the source was submitted, the source believed that a thermal oxidizer would be constructed to control VOC emissions. The thermal oxidizer was included in MSOP053-11188-00058. However, during source construction it was determined that a catalytic oxidizer would be

installed instead. This is the reason why the MSOP refers to a thermal oxidizer and this source modification refers to a catalytic oxidizer. The catalytic oxidizer was originally constructed in 2000 and is also being modified in this Significant Source Modification. There was no change made to the permit as a result of this comment.

Upon further review, IDEM, OAQ made the following changes to the permit:

1. Condition D.1.12(a) (Testing Requirements) states that "VOC and efficiency testing is required to determine compliance with Condition D.1.2." Condition D.1.2 does not contain an efficiency requirement, but Condition D.1.9(b) does contain an efficiency requirement. Therefore testing should be used to show compliance with Condition D.1.9 also. The following change was made to Condition D.1.12.

D.1.12 Testing Requirements [326 IAC 2-7-6(1),(6)] [326 IAC 2-1.1-11]

- (a) Pursuant to 40 CFR 60.675(c) and 40 CFR 60.11, VOC and efficiency testing to determine compliance with Conditions D.1.2 **and D.1.9** shall be conducted within 60 days after achieving the maximum production rate, but no later than 180 days after initial start-up. These tests shall be performed according to 326 IAC 3-6 (Source Sampling Procedures) utilizing U.S. EPA Methods 5 and 9 (40 CFR Part 60, Appendix A) or other methods as approved by the Commissioner.

2. For clarification purposes, the following changes were made:

D.1.9 Catalytic Oxidizer

- (a) The catalytic oxidizer, with a natural gas heat input of nine (9) MMBtu/hr, shall operate at all times when **Finishing Line 1 and Finishing Line 2** ~~is are~~ in operation in order to comply with 40 CFR 63, Subpart JJ and Condition D.1.2.
- (b) The catalytic oxidizer shall operate with an overall efficiency of not less than 85.5% at all times when **Finishing Line 1 and Finishing Line 2** ~~is are~~ in operation. This overall efficiency is necessary to ensure compliance with Condition D.1.2.

D.1.12 Testing Requirements [326 IAC 2-7-6(1),(6)] [326 IAC 2-1.1-11]

- (a) Pursuant to 40 CFR 60.675(c) and 40 CFR 60.11, VOC and efficiency testing **on the catalytic oxidizer controlling emissions from Finishing Line 1 and Finishing Line 2** to determine compliance with Conditions D.1.2 and D.1.9 shall be conducted within 60 days after achieving the maximum production rate, but no later than 180 days after initial start-up **of the reconstructed Finishing Line 2**. These tests shall be performed according to 326 IAC 3-6 (Source Sampling Procedures) utilizing U.S. EPA Methods 5 and 9 (40 CFR Part 60, Appendix A) or other methods as approved by the Commissioner.
- (b) Pursuant to 40 CFR 63, Subpart JJ, if the Permittee elects to demonstrate compliance using 63.804(a)(3) or 63.804(c)(2) or 63.804(d)(3) or 63.804(e)(2), performance testing **on Finishing Line 2** must be conducted in accordance with 40 CFR 63, Subpart JJ and 326 IAC 3-6.

D.1.16 Catalytic Oxidizer

The catalytic oxidizer shall maintain a minimum zone operating temperature of 800°F or a minimum zone operating temperature and fan amperage as determined from the most recent compliant stack test, as approved by IDEM. The temperature shall correlate to at least an overall VOC control

efficiency of 85.5%. The oxidizer shall capture at least 90% and catalytically oxidize at a minimum of 95% of the VOC from **Finishing Line 1 and** Finishing Line 2.

3. Record keeping and reporting of the grain loading and flow rate of BH-3 was determined to be unnecessary. Therefore the following changes were made:

D.2.8 Record Keeping Requirements

~~(a) To document compliance with Condition D.2.2, the Permittee shall maintain records of the grain loading and flow rate of BH-3. The Permittee shall also maintain records of the PM and PM₁₀ emissions calculated from this baghouse.~~

D.2.9 Reporting Requirements

~~A quarterly summary of the information to document compliance with Condition D.2.2 shall be submitted to the address listed in Section C - General Reporting Requirements, of this permit, using the reporting forms located at the end of this permit, or their equivalent, within thirty (30) days after the end of the quarter being reported. The report submitted by the Permittee does require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).~~

The reporting form corresponding to this requirement was deleted.

4. Page 10 of the TSD incorrectly states that "The catalysts shall be replaced a minimum of every one hundred twenty (120) months provided that the catalytic oxidizer is achieving the required overall efficiency." This incorrect statement was not carried over into the permit. Condition D.1.18 (Catalyst Replacement) of the permit states the correct catalyst replacement requirements. The TSD was not changed as the OAQ prefers that the Technical Support Document reflect the permit that was on public notice. Changes to the permit or technical support material that occur after the public notice are documented in this Addendum to the Technical Support Document. This accomplishes the desired result of ensuring that these types of concerns are documented and part of the record regarding this permit decision.

Indiana Department of Environmental Management Office of Air Quality

Technical Support Document (TSD) for a Part 70 Significant Source Modification.

Source Background and Description

Source Name:	American Woodmark
Source Location:	5300 East Side Parkway, Gas City, Indiana 46933
County:	Grant
SIC Code:	2434
Operation Permit No.:	T053-14234-00058
Operation Permit Issuance Date:	Pending
Significant Source Modification No.:	053-15248-00058
Permit Reviewer:	ERG/KC

The Office of Air Quality (OAQ) has reviewed a modification application from American Woodmark relating to the construction of the following emission units and pollution control devices:

- (a) One (1) Finishing Line 4, to be constructed in 2002, with a maximum capacity of 4,000 pounds of wood components per hour, consisting of the following units:
 - (1) Four (4) roll coaters, identified as EU 4-1, EU 4-2, EU 4-4, and EU 4-5, each with a maximum capacity of four (4) gallons of UV-cured coating per hour; and
 - (2) Two (2) curing lamps, identified as EU 4-3 and EU 4-6;
- (b) One (1) modification to the existing Finishing Line 2, originally constructed in 2000 and to be modified in 2002, with a maximum capacity of 4,000 pounds of wood components per hour, consisting of the following new units:
 - (1) Three (3) spray booths, identified as EU 2-12, EU 2-19, and EU 2-24, each with a maximum capacity of eight (8) gallons of coating per hour and one (1) gallon of cleaner per hour, all equipped with dry filters or water washes for particulate control, all vented to a common catalytic oxidizer that is also used to control emissions from the existing Finishing Line 1, originally constructed in 2000 and to be modified in 2002, with a total heat input capacity of nine (9) million British thermal units per hour;
 - (2) One (1) roll coater, identified as EU 2-14, with a maximum capacity of 0.5 gallons of coating per hour, with emissions vented back to spray booth EU 2-12;
 - (3) Three (3) ovens (hot water to air heat exchangers), identified as EU 2-16, EU 2-20, and EU 2-25, vented back to the spray booths EU 2-12, EU 2-19, and EU 2-24, respectively, each with cool down sections vented to the atmosphere; and

- (4) Woodworking operations associated with Finishing Line 2, with a maximum capacity of 4, 000 pounds of wood cabinet components per hour, all vent to baghouse BH-3 for particulate control. This source was previously issued the following construction Permit: CP053-11188-00058, issued on December 7, 1999.

History

On January 22, 2002, American Woodmark submitted an application to the OAQ requesting to modify Line 2 of their existing plant and add a new line, Line 4. American Woodmark submitted a Part 70 permit application on April 5, 2001. This source was previously issued the following construction permit: CP 053-11188-00058, issued on December 7, 1999.

Enforcement Issue

There are no enforcement actions pending.

Stack Summary

Stack ID	Operation	Height (feet)	Diameter (feet)	Flow Rate (acfm)	Temperature (°F)
S-6	Finishing Line 2	32	4	45,000	ambient
S-7	Finishing Line 2	40	2.3	6,000	105
S-8	Finishing Line 2	36	2.3	6,000	105
S-9	Finishing Line 2	36	2.3	6,000	105

Recommendation

The staff recommends to the Commissioner that the Part 70 Significant Source Modification be approved. This recommendation is based on the following facts and conditions:

Unless otherwise stated, information used in this review was derived from the application and additional information submitted by the applicant.

An application for the purposes of this review was received on January 22, 2002.

Emission Calculations

See Appendix A of this document for detailed emissions calculations (pages 1 through 5).

Potential To Emit of Modification

Pursuant to 326 IAC 2-1.1-1(16), Potential to Emit is defined as “the maximum capacity of a stationary source to emit any air pollutant under its physical and operational design. Any physical or operational limitation on the capacity of a source to emit an air pollutant, including air pollution control equipment and restrictions on hours of operation or type or amount of material combusted, stored, or processed shall be treated as part of its design if the limitation is enforceable by the U. S. EPA.”

This table reflects the PTE before controls. Control equipment is not considered federally enforceable until it has been required in a federally enforceable permit.

Pollutant	Potential To Emit (tons/year)
PM	1736.78
PM-10	1736.78
SO ₂	0.0
VOC	772.58
CO	3.3
NO _x	3.9

HAP's	Potential To Emit (tons/year)
Ethyl Benzene	31.9
Formaldehyde	0.27
Methanol	17.01
MEK	45.53
Methyl Isobutyl Ketone	93.9
Toluene	85.41
Xylene	141.21
Benzene	8.278x10 ⁻⁵
Dichlorobenzene	4.73x10 ⁻⁵
Hexane	7.096x10 ⁻²
Lead	1.971x10 ⁻⁵
Cadmium	4.336x10 ⁻⁵
Chromium	5.519x10 ⁻⁵
Manganese	1.498x10 ⁻⁵
Nickel	8.278x10 ⁻⁵
TOTAL	415.3

Justification for Modification

The Part 70 source is being modified through a Part 70 Significant Source Modification. This modification is being performed pursuant to 326 IAC 2-7-10.5(f)(4) as the potential to emit of PM and VOC is greater than twenty-five (25) tons per year.

County Attainment Status

The source is located in Grant County.

Pollutant	Status
PM-10	Attainment
SO ₂	Attainment
NO ₂	Attainment
Ozone	Attainment
CO	Attainment
Lead	Attainment

- (a) Volatile organic compounds (VOC) are precursors for the formation of ozone. Therefore, VOC emissions are considered when evaluating the rule applicability relating to the ozone standards. Grant County has been designated as attainment or unclassifiable for ozone. Therefore, VOC emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2 and 40 CFR 52.21.

- (b) Grant County has been classified as attainment or unclassifiable for PM₁₀, SO₂, NO₂, CO, and lead. Therefore, these emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2 and 40 CFR 52.21.
- (c) Fugitive Emissions
Since this type of operation is not one of the 28 listed source categories under 326 IAC 2-2 and since there are no applicable New Source Performance Standards that were in effect on August 7, 1980, the fugitive PM emissions are not counted toward determination of PSD and Emission Offset applicability.

Source Status

Existing Source PSD or Emission Offset Definition (emissions after controls, based upon 8760 hours of operation per year at rated capacity and/or as otherwise limited):

Pollutant	Emissions (tons/year)
PM	2.4
PM-10	2.3
SO ₂	0
VOC	249
CO	3.7
NOx	4.4

- (a) This existing source is not a major stationary source because no attainment regulated pollutant is emitted at a rate of 250 tons per year or more, and it is not one of the 28 listed source categories.
- (b) These emissions are based upon the TSD for CP053-11188-00058, issued on December 7, 1999

Potential to Emit of Modification After Issuance

The table below summarizes the potential to emit, reflecting all limits, of the significant emission units after controls. The control equipment is considered federally enforceable only after issuance of this Part 70 source modification.

	Potential to Emit (tons/year)						
Process/facility	PM	PM-10	SO ₂	VOC	CO	NO _x	HAPs
Line 2 Modification	Less than 17.36 (326 IAC 2-2)	Less than 17.36 (326 IAC 2-2)	0	Less than 250 source wide (326 IAC 2-2)	0	0	Less than 250 source wide (326 IAC 2-2)
New Line 4	0	0	0		0	0	
Existing Line 1	2.4 ¹	2.3 ¹	0		0	0	
Existing Line 3			0		0	0	

Finishing Line 2 and 3 Catalytic Oxidizer Combustion	0.3	0.3	0	0.2	3.3	3.9	Neg
Total	Less than 250 source wide (326 IAC 2-2)	Less than 250 source wide (326 IAC 2-2)	0	Less than 250 source wide (326 IAC 2-2)	3.3	3.9	Less than 250 source wide (326 IAC 2-2)

These emissions were obtained from CP053-11188-0058, issued on December 7, 1999.

This modification to an existing minor stationary source is not major because the source is going to maintain its PSD minor status for the entire source. Therefore, pursuant to 326 IAC 2-2, and 40 CFR 52.21, the PSD requirements do not apply.

Federal Rule Applicability

- (a) There are no New Source Performance Standards (NSPS)(326 IAC 12 and 40 CFR Part 60) applicable to this source.
- (b) The coating operations are subject to the National Emission Standards for Hazardous Air Pollutants, 326 IAC 14, 40 CFR 63, Subpart JJ (National Emission Standards for Wood Furniture Manufacturing Operations) because the source participates in the manufacture of wood furniture as defined in the rule and the source is major for HAPs. Pursuant to this rule, the wood furniture coating operations shall comply with the following conditions:
 - (1) Limit the Volatile Hazardous Air Pollutants (VHAP) emissions from finishing operations as follows:
 - (A) Achieve a weighted average volatile hazardous air pollutant (VHAP) content across all coatings of eight-tenths (0.8) pound VHAP per pound solids; or
 - (B) Use compliant finishing materials in which all stains have a maximum VHAP content of one (1.0) pound VHAP per pound solid, as applied.

Use compliant finishing materials in which all washcoats, sealers, topcoats, basecoats and enamels have a maximum VHAP content of eight-tenths (0.8) pound VHAP per pound solid, as applied. Thinners used for on-site formulation of washcoats, basecoats, and enamels have a three percent (3.0%) maximum VHAP content by weight. All other thinners have a ten percent (10.0%) maximum VHAP content by weight; or
 - (C) Use a control device to limit emissions to eight-tenths (0.8) for new source pound VHAP per pound solids; or
 - (D) Use a combination of (A), (B), and (C).
 - (2) Limit VHAP emissions contact adhesives as follows:
 - (A) For foam adhesives used in products that meet the upholstered seating flammability requirements, the VHAP content shall not exceed two-tenths (0.2) for new source pound VHAP per pound solids.

- (B) For all other contact adhesives (except aerosols and contact adhesives applied to nonporous substrates) the VHAP content shall not exceed one two-tenths (0.2) for new source pound VHAP per pound solids.
- (C) Use a control device to limit emissions to two-tenths (0.2) for new source pound VHAP per pound solids.
- (3) The strippable spray booth material shall have a maximum VOC content of eight-tenths (0.8) pounds VOC per pound solids.
- (4) The owner or operator of an affected source subject to this subpart shall prepare and maintain a written work practice implementation plan within sixty (60) calendar days after the compliance date. The work practice implementation plan must define environmentally desirable work practices for each wood furniture manufacturing operation and at a minimum address each of the following work practice standards as defined under 40 CFR 63.803:
 - (A) Operator training course.
 - (B) Leak inspection and maintenance plan.
 - (C) Cleaning and washoff solvent accounting system.
 - (D) Chemical composition of cleaning and washoff solvents.
 - (E) Spray booth cleaning.
 - (F) Storage requirements.
 - (G) Conventional air spray guns shall only be used under the circumstances defined under 40 CFR 63.803(h).
 - (H) Line cleaning.
 - (I) Gun cleaning.
 - (J) Washoff operations.
 - (K) Formulation assessment plan for finishing operations.

The source will comply with 40 CFR Part 63, Subpart JJ by a combination of weighted averages and a control device.

State Rule Applicability - Individual Facilities

326 IAC 2-2 (Prevention of Significant Deterioration)

- (a) BH-3 shall have a flow rate limitation of 45,000 acfm and shall have an emission limitation of 0.01 grains per dry standard cubic feet. This shall result in PM and PM₁₀ emissions of 16.89 tons per year (3.86 pounds per hour) from the new woodworking operations associated with Finishing Line 2. The dry filters of EU 2-12 and water washes of EU 2-19 and EU 2-24 for particulate control shall be in operation at all times that the spray booths are in operation. These limitations are structured such that the PM and PM₁₀ emissions from the entire source remain below two hundred and fifty (250) tons per year. Therefore, the source and the modification are both not subject to 326 IAC 2-2 (Prevention of Significant Deterioration).
- (b) Prior to this significant source modification, the source was PSD minor. To remain a PSD minor source after adding emissions from the Line 2 modification and the new Line 4, it was necessary to adjust the existing VOC PSD limit for the existing Lines 1 and 3. The revised PSD minor limit for the source is as follows:

The VOC input to the entire source shall be limited to less than one thousand seven hundred and seventeen (1,717) tons per twelve (12) consecutive month period including coatings, dilution solvents, and cleaning solvents. The following equation shall be used to calculate the total VOC input:

$$\text{VOC input (ton/year)} = \text{VOC input (ton) to Finishing Line 1} + \text{VOC input (ton) to Finishing Line 2} + (6.9 * \text{VOC input (ton) to Finishing Line 3}) + (6.9 * \text{VOC input (ton) to Finishing Line 4}) \leq 1,717 \text{ ton/yr}$$

The catalytic oxidizer controlling emissions from the existing Finishing Line 1 and the modified Finishing Line 2 shall operate at a minimum of 85.5% overall efficiency and shall operate at all times that Finishing Line 1 and Finishing Line 2 are in operation. This limit is equivalent to VOC emissions of two hundred forty-nine (249) tons per year from the four finishing lines. This limit is structured such that when including emissions from combustion, the source total VOC emissions are less than two hundred fifty (250) tons per year. Therefore the source and the modification are both not subject to 326 IAC 2-2 (Prevention of Significant Deterioration).

The following table displays the source wide VOC usage limit and equivalent source wide VOC emissions limit.

Line	Control Device	Control Efficiency	Source Wide VOC Usage Limit	Equivalent Source Wide VOC Emission Limit
Existing Line 1	Catalytic Oxidizer	No less than 85.5%	Less than 1,717 tons per year of VOC input ¹	Less than 250 tons/yr
Modified Line 2	Catalytic Oxidizer	No less than 85.5%		
Existing Line 3	None	0%		
New Line 4	None	0%		

Note: $1/(1-.855) = 6.9$

¹ $1,717 \geq \text{VOC input (ton) to Finishing Line 1} + \text{VOC input (ton) to Finishing Line 2} + (6.9 * \text{VOC input (ton) to Finishing Line 3}) + (6.9 * \text{VOC input (ton) to Finishing Line 4})$

Note that the VOC input to the uncontrolled lines shall be multiplied by a factor of 6.9 ($1/(1-\text{control efficiency}) = 6.9$) in order to equate the uncontrolled solvent throughput to an equivalent controlled solvent throughput. This multiplier ensures that even if the source were to input all 1,717 tons per year through the uncontrolled Finishing Lines 3 and 4, the total VOC emissions from the source would still be less than two hundred fifty (250) tons per year. The VOC input equation ensures that, no matter what combination of finishing lines the 1,717 tons of VOC is inputted to, there is no possible way for emissions from the four finishing lines to exceed 249 tons per year.

326 IAC 2-4.1-1 (New Source Toxics Control)

Although the modification is a major source of HAPs due to its potential to emit greater than ten (10) tons per year for a single HAP and twenty-five (25) tons per year of a combination of HAPs, the source is subject to 40 CFR Part 63, Subpart JJ. Therefore the modification is not subject to 326 IAC 2-4.1-1.

326 IAC 5-1 (Opacity Limitations)

Pursuant to 326 IAC 5-1-2 (Opacity Limitations), except as provided in 326 IAC 5-1-3 (Temporary Alternative Opacity Limitations), opacity shall meet the following, unless otherwise stated in this permit:

- (a) Opacity shall not exceed an average of forty percent (40%) any one (1) six (6) minute averaging period as determined in 326 IAC 5-1-4.
- (b) Opacity shall not exceed sixty percent (60%) for more than a cumulative total of fifteen (15) minutes (sixty (60) readings as measured according to 40 CFR 60, Appendix A, Method 9 or fifteen (15) one (1) minute nonoverlapping integrated averages for a continuous opacity monitor) in a six (6) hour period.

State Rule Applicability - Spray Booths

326 IAC 6-3-2 (Process Operations)

The particulate matter (PM) from the spray booths shall be limited by the following:

Interpolation of the data for the process weight rate up to sixty thousand (60,000) pounds per hour shall be accomplished by use of the equation:

$$E = 4.10 P^{0.67} \quad \text{where } E = \text{rate of emission in pounds per hour and} \\ P = \text{process weight rate in tons per hour}$$

The dry filters and water wash systems for the spray booths shall be in operation at all times the spray booths are in operation, in order to comply with this limit.

326 IAC 8-1-6 (New Facilities; General Reduction Requirements)

326 IAC 8-1-6 (New Facilities; General Reduction Requirements) does not apply to the surface coating operations even though they were constructed after January 1, 1980 and have the potential to emit greater than twenty-five (25) tons per year because other article 8 rules apply to this modification.

326 IAC 8-2-10 (Flat Wood Panel; Manufacturing Operations)

326 IAC 8-2-10 (Flat Wood Panel; Manufacturing Operations) is not applicable to this modification because this rule applies to sources constructing wood panels. This source constructs wood cabinets.

326 IAC 8-2-12 (Wood Furniture and Cabinet Coating)

326 IAC 8-2-12 (Wood Furniture and Cabinet Coating) applies to this modification because it was constructed after July 1, 1990 and has actual emissions greater than fifteen (15) pounds of VOC per day before add-on controls. Pursuant to this rule, the surface coating applied to wood furniture and cabinets shall utilize one of the following application methods:

- Airless Spray Application
- Air Assisted Airless Spray Application
- Electrostatic Spray Application
- Electrostatic Bell or Disc Application
- Heated Airless Spray Application
- Roller Coating

Brush or Wipe Application
Dip-and-Drain Application

High Volume Low Pressure (HVLP) Spray Application is an accepted alternative method of application for Air Assisted Airless Spray Application. HVLP spray is the technology used to apply coating to substrate by means of coating application equipment which operates between one-tenth (0.1) and ten (10) pounds per square inch gauge (psig) air pressure measured dynamically at the center of the air cap and at the air horns of the spray system.

The spray booths at this source utilize HVLP spray technology and are therefore in compliance with this rule. Brush, roller coating, and wipe application techniques will be utilized on the Finishing Line 2 and Finishing Line 3, therefore these lines will be in compliance with this rule.

326 IAC 8-11 (Wood Furniture Coating)

326 IAC 8-11 (Wood Furniture Coating) does not apply to this modification because this source is not located in Lake, Porter, Clark, or Floyd Counties. This source is located in Grant County.

State Rule Applicability - Woodworking

326 IAC 6-3-2 (Process Operations)

Pursuant to 326 IAC 6-3-2 (Process Operations), the particulate matter (PM) from the woodworking operations associated with Finishing Line 2 shall be limited to less than 6.52 pounds per hour when operating at a process weight rate of 4,000 pounds per hour. This limit was calculated using the following equation:

Interpolation of the data for the process weight rate up to sixty thousand (60,000) pounds per hour shall be accomplished by use of the equation:

$$E = 4.10 P^{0.67} \quad \text{where } E = \text{rate of emission in pounds per hour and} \\ P = \text{process weight rate in tons per hour}$$

The baghouse associated with Finishing Line 2 (BH-3) shall be in operation at all times the woodworking operations are in operation, in order to comply with this limit.

Compliance Requirements

Permits issued under 326 IAC 2-7 are required to ensure that sources can demonstrate compliance with applicable state and federal rules on a more or less continuous basis. All state and federal rules contain compliance provisions, however, these provisions do not always fulfill the requirement for a more or less continuous demonstration. When this occurs IDEM, OAQ, in conjunction with the source, must develop specific conditions to satisfy 326 IAC 2-7-5. As a result, compliance requirements are divided into two sections: Compliance Determination Requirements and Compliance Monitoring Requirements.

Compliance Determination Requirements in Section D of the permit are those conditions that are found more or less directly within state and federal rules and the violation of which serves as grounds for enforcement action. If these conditions are not sufficient to demonstrate continuous compliance, they will be supplemented with Compliance Monitoring Requirements, also Section D of the permit. Unlike Compliance Determination Requirements, failure to meet Compliance Monitoring conditions would serve as a trigger for corrective actions and not grounds for

enforcement action. However, a violation in relation to a compliance monitoring condition will arise through a source's failure to take the appropriate corrective actions within a specific time period.

The compliance monitoring requirements applicable to this modification are as follows:

1. The Finishing Lines have applicable compliance monitoring conditions as specified below:
 - (a) Daily inspections shall be performed to verify the placement, integrity and particle loading of the filters. The Compliance Response Plan shall be followed whenever a condition exists which should result in a response step. Failure to take response steps in accordance with Section C - Compliance Response Plan - Preparation, Implementation, Records, and Reports, shall be considered a violation of this permit.
 - (b) Daily inspections shall be performed to verify the placement, integrity and operation of the water wash system. The Compliance Response Plan shall be followed whenever a condition exists which should result in a response step. Failure to take response steps in accordance with Section C - Compliance Response Plan - Preparation, Implementation, Records, and Reports, shall be considered a violation of this permit.
 - (c) Monthly inspections shall be performed of the coating emissions from the stack and the presence of overspray on the rooftops and the nearby ground. The Compliance Response Plan for this unit shall contain troubleshooting contingency and response steps for when a noticeable change in overspray emission, or evidence of overspray emission is observed. The Compliance Response Plan shall be followed whenever a condition exists which should result in a response step. Failure to take response steps in accordance with Section C - Compliance Response Plan - Preparation, Implementation, Records, and Reports, shall be considered a violation of this permit.
 - (d) The catalytic oxidizer shall operate at all times that Finishing Line 2 is in operation. When operating, the catalytic oxidizer shall maintain a minimum zone operating temperature of 800°F or a minimum zone operating temperature and fan amperage as determined from the most recent compliant stack test, as approved by IDEM. The temperature shall correlate to an overall VOC control efficiency of 85.5%. The oxidizer shall capture at least 90% and catalytically oxidize at a minimum of 95% of the VOC from Finishing Line 2.
 - (e) A continuous monitoring system shall be calibrated, maintained, and operated on the catalytic oxidizer for measuring operating temperature. The output of this system shall be recorded, and that temperature shall be greater than or equal to the temperature used to demonstrate compliance during the most recent compliance stack test.
 - (f) The duct pressure or fan amperage shall be observed at least once per week when the catalytic oxidizer is in operation. This pressure or amperage shall be maintained with a range as established in most recent compliant stack test.
 - (g) The Compliance Response Plan for this unit shall contain troubleshooting contingency and response steps for when the reading is outside the above mentioned range for any one reading. Failure to take response steps in accordance with Section C - Compliance Response Plan - Preparation,

Implementation, Records, and Reports, shall be considered a violation of this permit.

- (h) The catalysts shall be replaced a minimum of every one hundred twenty (120) months provided that the catalytic oxidizer is achieving the required overall efficiency.
2. The woodworking operations have applicable compliance monitoring conditions as specified below:
- (a) Daily visible emissions notations of the woodworking operation stacks shall be performed during normal daylight operations. A trained employee will record whether emissions are normal or abnormal. For processes operated continuously "normal" means those conditions prevailing, or expected to prevail, eighty percent (80%) of the time the process is in operation, not counting startup or shut down time. In the case of batch or discontinuous operations, readings shall be taken during that part of the operation that would normally be expected to cause the greatest emissions. A trained employee is an employee who has worked at the plant at least one (1) month and has been trained in the appearance and characteristics of normal visible emissions for that specific process. The Compliance Response Plan for this unit shall contain troubleshooting contingency and response steps for when an abnormal emission is observed. Failure to take response steps in accordance with Section C - Compliance Response Plan - Preparation, Implementation, Records, and Reports, shall be considered a violation of this permit.

These monitoring conditions are necessary because the baghouses, dry filters, water washes, and catalytic oxidizer for the finishing lines and the wood working operations must operate properly to ensure compliance with 326 IAC 6-3 (Process Operations), 326 IAC 2-2 (Prevention of Significant Deterioration), and 40 CFR 60, Subpart JJJ (National Emission Standards for Wood Furniture Manufacturing Operations).

Conclusion

The construction of this proposed modification shall be subject to the conditions of the attached proposed Part 70 Significant Source Modification No. 053-15248-00058.

Appendix A: Emissions Calculations

VOC and Particulate

From Surface Coating Operations

Company Name: American Woodmark
Address City IN Zip: 5300 East Side Parkway, Gas City, Indiana 46933
Permit Number: 053-15248-00058
Plt ID: 053-00058
Reviewer: ERG/KC
Date: #####

Material	Density (Lb/Gal)	Weight % Volatile (H2O & Organics)	Weight % Water	Weight % Organics	Volume % Water	Volume % Non- Volatiles (solids)	Gal of Mat. (gal/unit)	Maximum (unit/hour)	Pounds VOC per gallon of coating less water	Pounds VOC per gallon of coating	Potential VOC pounds per hour	Potential VOC pounds per day	Potential VOC tons per year	Particulate Potential (ton/yr)	lb VOC/gal solids	Transfer Efficiency	
Finishing Line 2																	
Band Cleaner	6.91	100.00%	0.00%	100.00%	0.00%	0.00%	3.50000	1.000	6.91	6.91	24.19	580.44	105.93	0.00	#DIV/0!	75%	
Maple Frost Stain	7.79	84.98%	0.00%	84.98%	0.00%	4.54%	8.00000	1.000	6.62	6.62	52.96	1271.03	231.96	10.25	145.81	75%	
White Primer	8.36	83.01%	0.00%	83.01%	0.00%	20.92%	8.00000	1.000	6.94	6.94	55.52	1332.41	243.16	12.44	33.17	75%	
Rel Plaz Topcoat	7.81	64.40%	0.00%	64.40%	0.00%	27.22%	8.00000	1.000	5.03	5.03	40.24	965.69	176.24	24.36	18.48	75%	
									Finishing Line 2 Total						757.30	47.05	
Finishing Line 4																	
Honey Bottom UV Coating	9.22	2.93%	0.00%	2.93%	0.00%	97.07%	8.00000	1.000	0.27	0.27	2.16	51.87	9.47	0.00	0.28	100%	
#2 Bottom UV Coating	9.21	1.74%	0.00%	1.74%	0.00%	98.26%	8.00000	1.000	0.16	0.16	1.28	30.77	5.62	0.00	0.16	100%	
									Finishing Line 4 Total						15.08	0.00	
									Finishing Line 2 and 4 Total						772.38	47.05	

State Potential Emissions

METHODOLOGY

Pounds of VOC per Gallon Coating less Water = (Density (lb/gal) * Weight % Organics) / (1-Volume % water)
 Pounds of VOC per Gallon Coating = (Density (lb/gal) * Weight % Organics)
 Potential VOC Pounds per Hour = Pounds of VOC per Gallon coating (lb/gal) * Gal of Material (gal/unit) * Maximum (units/hr)
 Potential VOC Pounds per Day = Pounds of VOC per Gallon coating (lb/gal) * Gal of Material (gal/unit) * Maximum (units/hr) * (24 hr/day)
 Potential VOC Tons per Year = Pounds of VOC per Gallon coating (lb/gal) * Gal of Material (gal/unit) * Maximum (units/hr) * (8760 hr/yr) * (1 ton/2000 lbs)
 Particulate Potential Tons per Year = (units/hour) * (gal/unit) * (lbs/gal) * (1- Weight % Volatiles) * (1-Transfer efficiency) *(8760 hrs/yr) *(1 ton/2000 lbs)
 Pounds VOC per Gallon of Solids = (Density (lbs/gal) * Weight % organics) / (Volume % solids)
 Total = Worst Coating + Sum of all solvents used

Subpart JJ—National Emission Standards for Wood Furniture Manufacturing Operations

SOURCE: 60 FR 62936, Dec. 7, 1995, unless otherwise noted.

§ 63.800 Applicability.

(a) The affected source to which this subpart applies is each facility that is engaged, either in part or in whole, in the manufacture of wood furniture or wood furniture components and that is located at a plant site that is a major source as defined in 40 CFR part 63, subpart A, § 63.2. The owner or operator of a source that meets the definition for an incidental wood furniture manufacturer shall maintain purchase or usage records demonstrating that the source meets the definition in § 63.801 of this subpart, but the source shall not be subject to any other provisions of this subpart.

(b) A source that complies with the limits and criteria specified in paragraphs (b)(1), (b)(2), or (b)(3) of this section is an area source for the purposes of this subpart and is not subject to any other provision of this rule, provided that: In the case of paragraphs (b)(1) and (b)(2), finishing materials, adhesives, cleaning solvents and washoff solvents used for wood furniture or wood furniture component manufacturing operations account for at least 90 percent of annual HAP emissions at the plant site, and if the plant site has HAP emissions that do not originate from the listed materials, the owner or operator shall keep any records necessary to demonstrate that the 90 percent criterion is being met. A source that initially relies on the limits and criteria specified in paragraphs (b)(1), (b)(2), and (b)(3) to become an area source, but subsequently exceeds the relevant limit (without first obtaining and complying with other limits that keep its potential to emit hazardous air pollutants below major source levels), becomes a major source and must comply thereafter with all applicable provisions of this subpart starting on the applicable compliance date in § 63.800. Nothing in this paragraph (b) is intended to preclude a source from limiting its potential to emit through other appropriate mecha-

nisms that may be available through the permitting authority.

(1) The owner or operator of the source uses no more than 250 gallons per month, for every month, of coating, gluing, cleaning, and washoff materials at the source, including materials used for source categories other than wood furniture (surface coating), but excluding materials used in routine janitorial or facility grounds maintenance, personal uses by employees or other persons, the use of products for the purpose of maintaining motor vehicles operated by the facility, or the use of toxic chemicals contained in intake water (used for processing or noncontact cooling) or intake air (used either as compressed air or for combustion). The owner or operator shall maintain records of the total gallons of coating, gluing, cleaning, and washoff materials used each month, and upon request submit such records to the Administrator. These records shall be maintained for five years.

(2) The owner or operator of the source uses no more than 3,000 gallons per rolling 12-month period, for every 12-month period, of coating, gluing, cleaning, and washoff materials at the source, including materials used for source categories other than wood furniture (surface coating), but excluding materials used in routine janitorial or facility grounds maintenance, personal uses by employees or other persons, the use of products for the purpose of maintaining motor vehicles operated by the facility, or the use of toxic chemicals contained in intake water (used for processing or noncontact cooling) or intake air (used either as compressed air or for combustion). A rolling 12-month period includes the previous 12 months of operation. The owner or operator of the source shall maintain records of the total gallons of coating, gluing, cleaning, and washoff materials used each month and the total gallons used each previous month, and upon request submit such records to the Administrator. Because records are needed over the previous set of 12 months, the owner or operator shall keep monthly records beginning no less than one year before the compliance date specified in § 63.800(e).

§ 63.801

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Records shall be maintained for five years.

(3) The source emits no more than 4.5 Mg (5 tons) of any one HAP per rolling 12-month period and no more than 11.4 Mg (12.5 tons) of any combination of HAP per rolling 12-month period, and at least 90 percent of the plantwide emissions per rolling 12-month period are associated with the manufacture of wood furniture or wood furniture components.

(c) This subpart does not apply to research or laboratory facilities as defined in § 63.801.

(d) Owners or operators of affected sources shall also comply with the requirements of subpart A of this part (General Provisions), according to the applicability of subpart A to such sources, as identified in Table 1 of this subpart.

(e) The compliance date for existing affected sources that emit less than 50 tons per year of HAP in 1996 is December 7, 1998. The compliance date for existing affected sources that emit 50 tons or more of hazardous air pollutants in 1996 is November 21, 1997. The owner or operator of an existing area source that increases its emissions of (or its potential to emit) HAP such that the source becomes a major source that is subject to this subpart shall comply with this subpart one year after becoming a major source.

(f) New affected sources must comply with the provisions of this standard immediately upon startup or by December 7, 1995, whichever is later. New area sources that become major sources shall comply with the provisions of this standard immediately upon becoming a major source.

(g) Reconstructed affected sources are subject to the requirements for new affected sources. The costs associated with the purchase and installation of air pollution control equipment (e.g., incinerators, carbon adsorbers, etc.) are not considered in determining whether the facility has been reconstructed, unless the control equipment is required as part of the process (e.g., product recovery). Additionally, the costs of retrofitting and replacement of equipment that is installed specifically to comply with this subpart are not considered reconstruction costs. For

example, an affected source may convert to waterborne coatings to meet the requirements of this subpart. At most facilities, this conversion will require the replacement of existing storage tanks, mix equipment, and transfer lines. The cost of replacing the equipment is not considered in determining whether the facility has been reconstructed.

[60 FR 62936, Dec. 7, 1995, as amended at 62 FR 30259, June 3, 1997]

§ 63.801 Definitions.

(a) All terms used in this subpart that are not defined below have the meaning given to them in the CAA and in subpart A (General Provisions) of this part.

Adhesive means any chemical substance that is applied for the purpose of bonding two surfaces together other than by mechanical means. Under this subpart, adhesives shall not be considered coatings or finishing materials. Products used on humans and animals, adhesive tape, contact paper, or any other product with an adhesive incorporated onto or in an inert substrate shall not be considered adhesives under this subpart.

Administrator means the Administrator of the United States Environmental Protection Agency or his or her authorized representative.

Aerosol adhesive means an adhesive that is dispensed from a pressurized container as a suspension of fine solid or liquid particles in gas.

Affected source means a wood furniture manufacturing facility that is engaged, either in part or in whole, in the manufacture of wood furniture or wood furniture components and that is located at a plant site that is a major source as defined in 40 CFR part 63.2, excluding sources that meet the criteria established in § 63.800(a), (b) and (c) of this subpart.

Alternative method means any method of sampling and analyzing for an air pollutant that is not a reference or equivalent method but has been demonstrated to the Administrator's satisfaction to, in specific cases, produce results adequate for a determination of compliance.

As applied means the HAP and solids content of the coating or contact adhesive that is actually used for coating or gluing the substrate. It includes the contribution of materials used for in-house dilution of the coating or contact adhesive.

Basecoat means a coat of colored material, usually opaque, that is applied before graining inks, glazing coats, or other opaque finishing materials, and is usually topcoated for protection.

Baseline conditions means the conditions that exist prior to an affected source implementing controls, such as a control system.

Building enclosure means a building housing a process that meets the requirements of a temporary total enclosure. The EPA Method 204E is used to identify all emission points from the building enclosure and to determine which emission points must be tested. For additional information see *Guidelines for Determining Capture Efficiency*, January 1994. Docket No. A-93-10, Item No. IV-B-1.

Capture device means a hood, enclosed room, floor sweep, or other means of collecting solvent emissions or other pollutants into a duct so that the pollutant can be directed to a pollution control device such as an incinerator or carbon adsorber.

Capture efficiency means the fraction of all organic vapors generated by a process that are directed to a control device.

Certified product data sheet (CPDS) means documentation furnished by coating or adhesive suppliers or an outside laboratory that provides:

(1) The VHAP content of a finishing material, contact adhesive, or solvent, by percent weight, measured using the EPA Method 311 (as promulgated in this subpart), or an equivalent or alternative method (or formulation data if the coating meets the criteria specified in § 63.805(a));

(2) The solids content of a finishing material or contact adhesive by percent weight, determined using data from the EPA Method 24, or an alternative or equivalent method (or formulation data if the coating meets the criteria specified in § 63.805 (a)); and

(3) The density, measured by EPA Method 24 or an alternative or equivalent

method. Therefore, the reportable VHAP content shall represent the maximum aggregate emissions potential of the finishing material, adhesive, or solvent in concentrations greater than or equal to 1.0 percent by weight or 0.1 percent for VHAP that are carcinogens, as defined by the Occupational Safety and Health Administration Hazard Communication Standard (29 CFR part 1910), as formulated. Only VHAP present in concentrations greater than or equal to 1.0 percent by weight, or 0.1 percent for VHAP that are carcinogens, must be reported on the CPDS. The purpose of the CPDS is to assist the affected source in demonstrating compliance with the emission limitations presented in § 63.802.

NOTE: Because the optimum analytical conditions under EPA Method 311 vary by coating, the coating or adhesive supplier may also choose to include on the CPDS the optimum analytical conditions for analysis of the coating, adhesive, or solvent using EPA Method 311. Such information may include, but not be limited to, separation column, oven temperature, carrier gas, injection port temperature, extraction solvent, and internal standard.)

Cleaning operations means operations in which organic HAP solvent is used to remove coating materials or adhesives from equipment used in wood furniture manufacturing operations.

Coating means a protective, decorative, or functional film applied in a thin layer to a surface. Such materials include, but are not limited to, paints, topcoats, varnishes, sealers, stains, washcoats, basecoats, enamels, inks, and temporary protective coatings. Aerosol spray paints used for touch-up and repair are not considered coatings under this subpart.

Coating application station means the part of a coating operation where the coating is applied, e.g., a spray booth.

Coating operation means those activities in which a coating is applied to a substrate and is subsequently air-dried, cured in an oven, or cured by radiation.

Coating solids (or solids) means the part of the coating which remains after the coating is dried or cured; solids content is determined using data from the EPA Method 24, or an equivalent or alternative method.

Compliant coating/contact adhesive means a finishing material, contact adhesive, or strippable booth coating that meets the emission limits specified in Table 3 of this subpart.

Contact adhesive means an adhesive that is applied to two substrates, dried, and mated under only enough pressure to result in good contact. The bond is immediate and sufficiently strong to hold pieces together without further clamping, pressure, or airing.

Continuous coater means a finishing system that continuously applies finishing materials onto furniture parts moving along a conveyor. Finishing materials that are not transferred to the part are recycled to a reservoir. Several types of application methods can be used with a continuous coater including spraying, curtain coating, roll coating, dip coating, and flow coating.

Continuous compliance means that the affected source is meeting the emission limitations and other requirements of the rule at all times and is fulfilling all monitoring and recordkeeping provisions of the rule in order to demonstrate compliance.

Control device means any equipment that reduces the quantity of a pollutant that is emitted to the air. The device may destroy or secure the pollutant for subsequent recovery. Includes, but is not limited to, incinerators, carbon adsorbers, and condensers.

Control device efficiency means the ratio of the pollutant released by a control device and the pollutant introduced to the control device.

Control system means the combination of capture and control devices used to reduce emissions to the atmosphere.

Conventional air spray means a spray coating method in which the coating is atomized by mixing it with compressed air and applied at an air pressure greater than 10 pounds per square inch (gauge) at the point of atomization. Airless and air assisted airless spray technologies are not conventional air spray because the coating is not atomized by mixing it with compressed air. Electrostatic spray technology is also not considered conventional air spray because an electrostatic charge is employed to attract the coating to the workpiece.

Data quality objective (DQO) approach means a set of approval criteria that must be met so that data from an alternative test method can be used in determining the capture efficiency of a control system. For additional information, see *Guidelines for Determining Capture Efficiency*, January 1994. (Docket No. A-93-10, Item No. IV-B-1).

Day means a period of 24 consecutive hours beginning at midnight local time, or beginning at a time consistent with a facility's operating schedule.

Disposed offsite means sending used organic HAP solvent or coatings outside of the facility boundaries for disposal.

Emission means the release or discharge, whether directly or indirectly, of HAP into the ambient air.

Enamel means a coat of colored material, usually opaque, that is applied as a protective topcoat over a basecoat, primer, or previously applied enamel coats. In some cases, another finishing material may be applied as a topcoat over the enamel.

Equipment leak means emissions of VHAP from pumps, valves, flanges, or other equipment used to transfer or apply coatings, adhesives, or organic HAP solvents.

Equivalent method means any method of sampling and analyzing for an air pollutant that has been demonstrated to the Administrator's satisfaction to have a consistent and quantitatively known relationship to the reference method, under specific conditions.

Finishing material means a coating used in the wood furniture industry. Such materials include, but are not limited to, stains, basecoats, washcoats, enamels, sealers, and topcoats.

Finishing operation means those operations in which a finishing material is applied to a substrate and is subsequently air-dried, cured in an oven, or cured by radiation.

Foam adhesive means a contact adhesive used for gluing foam to fabric, foam to foam, and fabric to wood.

Gluing operation means those operations in which adhesives are used to join components, for example, to apply a laminate to a wood substrate or foam to fabric.

Incidental wood furniture manufacturer means a major source that is primarily engaged in the manufacture of products other than wood furniture or wood furniture components and that uses no more than 100 gallons per month of finishing material or adhesives in the manufacture of wood furniture or wood furniture components.

Incinerator means, for the purposes of this industry, an enclosed combustion device that thermally oxidizes volatile organic compounds to CO and CO₂. This term does not include devices that burn municipal or hazardous waste material.

Janitorial maintenance means the upkeep of equipment or building structures that is not directly related to the manufacturing process, for example, cleaning of restroom facilities.

Lower confidence limit (LCL) approach means a set of approval criteria that must be met so that data from an alternative test method can be used in determining the capture efficiency of a control system. For additional information, see *Guidelines for Determining Capture Efficiency*, January 1994. (Docket No. A-93-10, Item No. IV-B-1).

Material safety data sheet (MSDS) means the documentation required for hazardous chemicals by the Occupational Safety and Health Administration (OSHA) Hazard Communication Standard (29 CFR Part 1910) for a solvent, cleaning material, contact adhesive, coating, or other material that identifies select reportable hazardous ingredients of the material, safety and health considerations, and handling procedures.

Noncompliant coating/contact adhesive means a finishing material, contact adhesive, or strippable booth coating that has a VHAP content (VOC content for the strippable booth coating) greater than the emission limitation presented in Table 3 of this subpart.

Nonporous substrate means a surface that is impermeable to liquids. Examples include metal, rigid plastic, flexible vinyl, and rubber.

Normally closed container means a container that is closed unless an operator is actively engaged in activities such as emptying or filling the container.

Operating parameter value means a minimum or maximum value established for a control device or process parameter that, if achieved by itself or in combination with one or more other operating parameter values, determines that an owner or operator has complied with an applicable emission limit.

Organic HAP solvent means a HAP that is a volatile organic liquid used for dissolving or dispersing constituents in a coating or contact adhesive, adjusting the viscosity of a coating or contact adhesive, or cleaning equipment. When used in a coating or contact adhesive, the organic HAP solvent evaporates during drying and does not become a part of the dried film.

Overall control efficiency means the efficiency of a control system, calculated as the product of the capture and control device efficiencies, expressed as a percentage.

Permanent total enclosure means a permanently installed enclosure that completely surrounds a source of emissions such that all emissions are captured and contained for discharge through a control device. For additional information, see *Guidelines for Determining Capture Efficiency*, January 1994. (Docket No. A-93-10, Item No. IV-B-1).

Recycled onsite means the reuse of an organic HAP solvent in a process other than cleaning or washoff.

Reference method means any method of sampling and analyzing for an air pollutant that is published in Appendix A of 40 CFR part 60.

Research or laboratory facility means any stationary source whose primary purpose is to conduct research and development to develop new processes and products where such source is operated under the close supervision of technically trained personnel and is not engaged in the manufacture of products for commercial sale in commerce, except in a de minimis manner.

Responsible official has the meaning given to it in 40 CFR part 70, State Operating Permit Programs (Title V permits).

Sealer means a finishing material used to seal the pores of a wood substrate before additional coats of finishing material are applied. Special purpose finishing materials that are

used in some finishing systems to optimize aesthetics are not sealers.

Solvent means a liquid used in a coating or contact adhesive to dissolve or disperse constituents and/or to adjust viscosity. It evaporates during drying and does not become a part of the dried film.

Stain means any color coat having a solids content by weight of no more than 8.0 percent that is applied in single or multiple coats directly to the substrate. It includes, but is not limited to, nongrain raising stains, equalizer stains, prestains, sap stains, body stains, no-wipe stains, penetrating stains, and toners.

Storage containers means vessels or tanks, including mix equipment, used to hold finishing, gluing, cleaning, or washoff materials.

Strippable spray booth material means a coating that:

- (1) Is applied to a spray booth wall to provide a protective film to receive over spray during finishing operations;
- (2) That is subsequently peeled off and disposed; and
- (3) By achieving (1) and (2) of this definition reduces or eliminates the need to use organic HAP solvents to clean spray booth walls.

Substrate means the surface onto which a coating or contact adhesive is applied (or into which a coating or contact adhesive is impregnated).

Temporary total enclosure means an enclosure that meets the requirements of § 63.805(e)(1) (i) through (iv) and is not permanent, but constructed only to measure the capture efficiency of pollutants emitted from a given source. Additionally, any exhaust point from the enclosure shall be at least four equivalent duct or hood diameters from each natural draft opening. For additional information, see *Guidelines for Determining Capture Efficiency*, January 1994. (Docket No. A-93-10, Item No. IV-B-1).

Thinner means a volatile liquid that is used to dilute coatings or contact adhesives (to reduce viscosity, color strength, and solids, or to modify drying conditions).

Topcoat means the last film-building finishing material that is applied in a finishing system.

Touchup and repair means the application of finishing materials to cover minor finishing imperfections.

VHAP means any volatile hazardous air pollutant listed in Table 2 to Subpart JJ.

VHAP of potential concern means any VHAP from the list in table 6 of this subpart.

Volatile organic compound (VOC) means any organic compound which participates in atmospheric photochemical reactions, that is, any organic compound other than those which the Administrator designates as having negligible photochemical reactivity. A VOC may be measured by a reference method, an equivalent method, an alternative method, or by procedures specified under any rule. A reference method, an equivalent method, or an alternative method, however, may also measure nonreactive organic compounds. In such cases, the owner or operator may exclude the nonreactive organic compounds when determining compliance with a standard. For a list of compounds that the Administrator has designated as having negligible photochemical reactivity, refer to 40 CFR part 51.10.

Washcoat means a transparent special purpose finishing material having a solids content by weight of 12.0 percent by weight or less. Washcoats are applied over initial stains to protect, to control color, and to stiffen the wood fibers in order to aid sanding.

Washoff operations means those operations in which organic HAP solvent is used to remove coating from wood furniture or a wood furniture component.

Wood furniture means any product made of wood, a wood product such as rattan or wicker, or an engineered wood product such as particleboard that is manufactured under any of the following standard industrial classification codes: 2434, 2511, 2512, 2517, 2519, 2521, 2531, 2541, 2599, or 5712.

Wood furniture component means any part that is used in the manufacture of wood furniture. Examples include, but are not limited to, drawer sides, cabinet doors, seat cushions, and laminated tops. However, foam seat cushions manufactured and fabricated at a facility that does not engage in any other

wood furniture or wood furniture component manufacturing operation are excluded from this definition.

Wood furniture manufacturing operations means the finishing, gluing, cleaning, and washoff operations associated with the production of wood furniture or wood furniture components.

(b) The nomenclature used in this subpart has the following meaning:

(1) A_k = the area of each natural draft opening (k) in a total enclosure, in square meters.

(2) C_c = the VHAP content of a finishing material (c), in kilograms of volatile hazardous air pollutants per kilogram of coating solids (kg VHAP/kg solids), as supplied. Also given in pounds of volatile hazardous air pollutants per pound of coating solids (lb VHAP/lb solids).

(3) C_{aj} = the concentration of VHAP in gas stream (j) exiting the control device, in parts per million by volume.

(4) C_{bi} = the concentration of VHAP in gas stream (i) entering the control device, in parts per million by volume.

(5) C_{di} = the concentration of VHAP in gas stream (i) entering the control device from the affected source, in parts per million by volume.

(6) C_{k} = the concentration of VHAP in uncontrolled gas stream (k) emitted directly to the atmosphere from the affected source, in parts per million by volume.

(7) E = the emission limit achieved by an emission point or a set of emission points, in kg VHAP/kg solids (lb VHAP/lb solids).

(8) F = the control device efficiency, expressed as a fraction.

(9) FV = the average inward face velocity across all natural draft openings in a total enclosure, in meters per hour.

(10) G = the VHAP content of a contact adhesive, in kg VHAP/kg solids (lb VHAP/lb solids), as applied.

(11) M = the mass of solids in finishing material used monthly, kg solids/month (lb solids/month).

(12) N = the capture efficiency, expressed as a fraction.

(13) Q_{aj} = the volumetric flow rate of gas stream (j) exiting the control device, in dry standard cubic meters per hour.

(14) Q_{bi} = the volumetric flow rate of gas stream (i) entering the control de-

vice, in dry standard cubic meters per hour.

(15) Q_{di} = the volumetric flow rate of gas stream (i) entering the control device from the emission point, in dry standard cubic meters per hour.

(16) Q_k = the volumetric flow rate of uncontrolled gas stream (k) emitted directly to the atmosphere from the emission point, in dry standard cubic meters per hour.

(17) $Q_{in i}$ = the volumetric flow rate of gas stream (i) entering the total enclosure through a forced makeup air duct, in standard cubic meters per hour (wet basis).

(18) $Q_{out j}$ = the volumetric flow rate of gas stream (j) exiting the total enclosure through an exhaust duct or hood, in standard cubic meters per hour (wet basis).

(19) R = the overall efficiency of the control system, expressed as a percentage.

(20) S = the VHAP content of a solvent, expressed as a weight fraction, added to finishing materials.

(21) W = the amount of solvent, in kilograms (pounds), added to finishing materials during the monthly averaging period.

(22) ac = after the control system is installed and operated.

(23) bc = before control.

[60 FR 62936, Dec. 7, 1995, as amended at 62 FR 30260, June 3, 1997; 62 FR 31363, June 9, 1997; 63 FR 71380, Dec. 28, 1998]

§ 63.802 Emission limits.

(a) Each owner or operator of an existing affected source subject to this subpart shall:

(1) Limit VHAP emissions from finishing operations by meeting the emission limitations for existing sources presented in Table 3 of this subpart, using any of the compliance methods in § 63.804(a). To determine VHAP emissions from a finishing material containing formaldehyde or styrene, the owner or operator of the affected source shall use the methods presented in § 63.803(1)(2) for determining styrene and formaldehyde usage.

(2) Limit VHAP emissions from contact adhesives by achieving a VHAP limit for contact adhesives based on the following criteria:

(i) For foam adhesives (contact adhesives used for upholstery operations) used in products that meet the upholstered seating flammability requirements of California Technical Bulletin 116, 117, or 133, the Business and Institutional Furniture Manufacturers Association's (BIFMA's) X5.7, UFAC flammability testing, or any similar requirements from local, State, or Federal fire regulatory agencies, the VHAP content of the adhesive shall not exceed 1.8 kg VHAP/kg solids (1.8 lb VHAP/lb solids), as applied; or

(ii) For all other contact adhesives (including foam adhesives used in products that do not meet the standards presented in paragraph (a)(2)(i) of this section, but excluding aerosol adhesives and excluding contact adhesives applied to nonporous substrates, the VHAP content of the adhesive shall not exceed 1.0 kg VHAP/kg solids (1.0 lb VHAP/lb solids), as applied.

(3) Limit HAP emissions from strippable spray booth coatings by using coatings that contain no more than 0.8 kg VOC/kg solids (0.8 lb VOC/lb solids), as applied.

(b) Each owner or operator of a new affected source subject to this subpart shall:

(1) Limit VHAP emissions from finishing operations by meeting the emission limitations for new sources presented in Table 3 of this subpart using any of the compliance methods in § 63.804(d). To determine VHAP emissions from a finishing material containing formaldehyde or styrene, the owner or operator of the affected source shall use the methods presented in § 63.803(l)(2) for determining styrene and formaldehyde usage.

(2) Limit VHAP emissions from contact adhesives by achieving a VHAP limit for contact adhesives, excluding aerosol adhesives and excluding contact adhesives applied to nonporous substrates, of no greater than 0.2 kg VHAP/kg solids (0.2 lb VHAP/lb solids), as applied, using either of the compliance methods in § 63.804(e).

(3) Limit HAP emissions from strippable spray booth coatings by using coatings that contain no more than 0.8 kg VOC/kg solids (0.8 lb VOC/lb solids), as applied.

§ 63.803 Work practice standards.

(a) *Work practice implementation plan.* Each owner or operator of an affected source subject to this subpart shall prepare and maintain a written work practice implementation plan that defines environmentally desirable work practices for each wood furniture manufacturing operation and addresses each of the work practice standards presented in paragraphs (b) through (l) of this section. The plan shall be developed no more than 60 days after the compliance date. The written work practice implementation plan shall be available for inspection by the Administrator upon request. If the Administrator determines that the work practice implementation plan does not adequately address each of the topics specified in paragraphs (b) through (l) of this section or that the plan does not include sufficient mechanisms for ensuring that the work practice standards are being implemented, the Administrator may require the affected source to modify the plan. Revisions or modifications to the plan do not require a revision of the source's Title V permit.

(b) *Operator training course.* Each owner or operator of an affected source shall train all new and existing personnel, including contract personnel, who are involved in finishing, gluing, cleaning, and washoff operations, use of manufacturing equipment, or implementation of the requirements of this subpart. All new personnel, those hired after the compliance date of the standard, shall be trained upon hiring. All existing personnel, those hired before the compliance date of the standard, shall be trained within six months of the compliance date of the standard. All personnel shall be given refresher training annually. The affected source shall maintain a copy of the training program with the work practice implementation plan. The training program shall include, at a minimum, the following:

(1) A list of all current personnel by name and job description that are required to be trained;

(2) An outline of the subjects to be covered in the initial and refresher training for each position or group of personnel;

(3) Lesson plans for courses to be given at the initial and the annual refresher training that include, at a minimum, appropriate application techniques, appropriate cleaning and washoff procedures, appropriate equipment setup and adjustment to minimize finishing material usage and overspray, and appropriate management of cleanup wastes; and

(4) A description of the methods to be used at the completion of initial or refresher training to demonstrate and document successful completion.

(c) *Inspection and maintenance plan.* Each owner or operator of an affected source shall prepare and maintain with the work practice implementation plan a written leak inspection and maintenance plan that specifies:

(1) A minimum visual inspection frequency of once per month for all equipment used to transfer or apply coatings, adhesives, or organic HAP solvents;

(2) An inspection schedule;

(3) Methods for documenting the date and results of each inspection and any repairs that were made;

(4) The timeframe between identifying the leak and making the repair, which adheres, at a minimum, to the following schedule:

(i) A first attempt at repair (e.g., tightening of packing glands) shall be made no later than five calendar days after the leak is detected; and

(ii) Final repairs shall be made within 15 calendar days after the leak is detected, unless the leaking equipment is to be replaced by a new purchase, in which case repairs shall be completed within three months.

(d) *Cleaning and washoff solvent accounting system.* Each owner or operator of an affected source shall develop an organic HAP solvent accounting form to record:

(1) The quantity and type of organic HAP solvent used each month for washoff and cleaning, as defined in § 63.801 of this subpart;

(2) The number of pieces washed off, and the reason for the washoff; and

(3) The quantity of spent organic HAP solvent generated from each washoff and cleaning operation each month, and whether it is recycled on-site or disposed offsite.

(e) *Chemical composition of cleaning and washoff solvents.* Each owner or operator of an affected source shall not use cleaning or washoff solvents that contain any of the pollutants listed in Table 4 to this subpart, in concentrations subject to MSDS reporting as required by OSHA.

(f) *Spray booth cleaning.* Each owner or operator of an affected source shall not use compounds containing more than 8.0 percent by weight of VOC for cleaning spray booth components other than conveyors, continuous coaters and their enclosures, or metal filters, or plastic filters unless the spray booth is being refurbished. If the spray booth is being refurbished, that is the spray booth coating or other protective material used to cover the booth is being replaced, the affected source shall use no more than 1.0 gallon of organic HAP solvent per booth to prepare the surface of the booth prior to applying the booth coating.

(g) *Storage requirements.* Each owner or operator of an affected source shall use normally closed containers for storing finishing, gluing, cleaning, and washoff materials.

(h) *Application equipment requirements.* Each owner or operator of an affected source shall use conventional air spray guns to apply finishing materials only under any of the following circumstances:

(1) To apply finishing materials that have a VOC content no greater than 1.0 lb VOC/lb solids, as applied;

(2) For touchup and repair under the following conditions:

(i) The touchup and repair occurs after completion of the finishing operation; or

(ii) The touchup and repair occurs after the application of stain and before the application of any other type of finishing material, and the materials used for touchup and repair are applied from a container that has a volume of no more than 2.0 gallons.

(3) When spray is automated, that is, the spray gun is aimed and triggered automatically, not manually;

(4) When emissions from the finishing application station are directed to a control device;

(5) The conventional air gun is used to apply finishing materials and the

cumulative total usage of that finishing material is no more than 5.0 percent of the total gallons of finishing material used during that semiannual period; or

(6) The conventional air gun is used to apply stain on a part for which it is technically or economically infeasible to use any other spray application technology.

The affected source shall demonstrate technical or economic infeasibility by submitting to the Administrator a videotape, a technical report, or other documentation that supports the affected source's claim of technical or economic infeasibility. The following criteria shall be used, either independently or in combination, to support the affected source's claim of technical or economic infeasibility:

(i) The production speed is too high or the part shape is too complex for one operator to coat the part and the application station is not large enough to accommodate an additional operator; or

(ii) The excessively large vertical spray area of the part makes it difficult to avoid sagging or runs in the stain.

(i) *Line cleaning.* Each owner or operator of an affected source shall pump or drain all organic HAP solvent used for line cleaning into a normally closed container.

(j) *Gun cleaning.* Each owner or operator of an affected source shall collect all organic HAP solvent used to clean spray guns into a normally closed container.

(k) *Washoff operations.* Each owner or operator of an affected source shall control emissions from washoff operations by:

(1) Using normally closed tanks for washoff; and

(2) Minimizing dripping by tilting or rotating the part to drain as much solvent as possible.

(l) *Formulation assessment plan for finishing operations.* Each owner or operator of an affected source shall prepare and maintain with the work practice implementation plan a formulation assessment plan that:

(1) Identifies VHAP from the list presented in Table 5 of this subpart that

are being used in finishing operations by the affected source;

(2) Establishes a baseline level of usage by the affected source, for each VHAP identified in paragraph (l)(1) of this section. The baseline usage level shall be the highest annual usage from 1994, 1995, or 1996, for each VHAP identified in paragraph (l)(1) of this section. For formaldehyde, the baseline level of usage shall be based on the amount of free formaldehyde present in the finishing material when it is applied. For styrene, the baseline level of usage shall be an estimate of unreacted styrene, which shall be calculated by multiplying the amount of styrene monomer in the finishing material, when it is applied, by a factor of 0.16. Sources using a control device to reduce emissions may adjust their usage based on the overall control efficiency of the control system, which is determined using the equation in § 63.805 (d) or (e).

(3) Tracks the annual usage of each VHAP identified in (l)(1) by the affected source that is present in amounts subject to MSDS reporting as required by OSHA.

(4) If, after November 1998, the annual usage of the VHAP identified in paragraph (l)(1) exceeds its baseline level, then the owner or operator of the affected source shall provide a written notification to the permitting authority that describes the amount of the increase and explains the reasons for exceedance of the baseline level. The following explanations would relieve the owner or operator from further action, unless the affected source is not in compliance with any State regulations or requirements for that VHAP:

(i) The exceedance is no more than 15.0 percent above the baseline level;

(ii) Usage of the VHAP is below the de minimis level presented in Table 5 of this subpart for that VHAP (sources using a control device to reduce emissions may adjust their usage based on the overall control efficiency of the control system, which is determined using the procedures in § 63.805 (d) or (e);

(iii) The affected source is in compliance with its State's air toxic regulations or guidelines for the VHAP; or

(iv) The source of the pollutant is a finishing material with a VOC content

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of no more than 1.0 kg VOC/kg solids (1.0 lb VOC/lb solids), as applied.

(5) If none of the above explanations are the reason for the increase, the owner or operator shall confer with the permitting authority to discuss the reason for the increase and whether there are practical and reasonable technology-based solutions for reducing the usage. The evaluation of whether a technology is reasonable and practical shall be based on cost, quality, and marketability of the product, whether the technology is being used successfully by other wood furniture manufacturing operations, or other criteria mutually agreed upon by the permitting authority and owner or operator. If there are no practical and reasonable solutions, the facility need take no further action. If there are solutions, the owner or operator shall develop a plan to reduce usage of the pollutant to the extent feasible. The plan shall address the approach to be used to reduce emissions, a timetable for implementing the plan, and a schedule for submitting notification of progress.

(6) If, after November 1998, an affected source uses a VHAP of potential concern listed in table 6 of this subpart for which a baseline level has not been previously established, then the baseline level shall be established as the *de minimis* level provided in that same table for that chemical. The affected source shall track the annual usage of each VHAP of potential concern identified in this paragraph that is present in amounts subject to MSDS reporting as required by OSHA. If usage of the VHAP of potential concern exceeds the *de minimis* level listed in table 6 of this subpart for that chemical, then the affected source shall provide an explanation to the permitting authority that documents the reason for the exceedance of the *de minimis* level. If the explanation is not one of those listed in paragraphs (1)(4)(i) through (1)(4)(iv) of this section, the affected source shall follow the procedures in paragraph (1)(5) of this section.

[60 FR 62936, Dec. 7, 1995, as amended at 63 FR 71380, Dec. 28, 1998]

§ 63.804 Compliance procedures and monitoring requirements.

(a) The owner or operator of an existing affected source subject to § 63.802(a)(1) shall comply with those provisions using any of the methods presented in § 63.804 (a)(1) through (a)(4).

(1) Calculate the average VHAP content for all finishing materials used at the facility using Equation 1, and maintain a value of E no greater than 1.0;

$$E = (M_{c1} C_{c1} + M_{c2} C_{c2} + \dots + M_{cn} C_{cn} + S_1 W_1 + S_2 W_2 + \dots + S_n W_n) / (M_{c1} + M_{c2} + \dots + M_{cn}) \quad \text{Equation 1}$$

(2) Use compliant finishing materials according to the following criteria:

(i) Demonstrate that each stain, sealer, and topcoat has a VHAP content of no more than 1.0 kg VHAP/kg solids (1.0 lb VHAP/lb solids), as applied, and each thinner contains no more than 10.0 percent VHAP by weight by maintaining certified product data sheets for each coating and thinner;

(ii) Demonstrate that each washcoat, basecoat, and enamel that is purchased pre-made, that is, it is not formulated onsite by thinning another finishing material, has a VHAP content of no more than 1.0 kg VHAP/kg solids (1.0 lb VHAP/lb solids), as applied, and each thinner contains no more than 10.0 percent VHAP by weight by maintaining certified product data sheets for each coating and thinner; and

(iii) Demonstrate that each washcoat, basecoat, and enamel that is formulated at the affected source is formulated using a finishing material containing no more than 1.0 kg VHAP/kg solids (1.0 lb VHAP/lb solids) and a thinner containing no more than 3.0 percent VHAP by weight.

(3) Use a control system with an overall control efficiency (R) such that the value of E_{ac} in Equation 2 is no greater than 1.0.

$$R = [(E_{bc} - E_{ac}) / E_{bc}] (100) \quad \text{Equation 2}$$

The value of E_{bc} in Equation 2 shall be calculated using Equation 1; or

(4) Use any combination of an averaging approach, as described in paragraph (a)(1) of this section, compliant finishing materials, as described in paragraph (a)(2) of this section, and a

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control system, as described in paragraph (a)(3) of this section.

(b) The owner or operator of an affected source subject to § 63.802(a)(2)(i) shall comply with the provisions by using compliant foam adhesives with a VHAP content no greater than 1.8 kg VHAP/kg solids (1.8 lb VHAP/lb solids), as applied.

(c) The owner or operator of an affected source subject to § 63.802(a)(2)(ii) shall comply with those provisions by using either of the methods presented in § 63.804 (c)(1) and (c)(2).

(1) Use compliant contact adhesives with a VHAP content no greater than 1.0 kg VHAP/kg solids (1.0 lb VHAP/lb solids), as applied; or

(2) Use a control system with an overall control efficiency (R) such that the value of G_{ac} is no greater than 1.0.
$$R = [(G_{bc} - G_{ac}) / G_{bc}] (100) \quad \text{Equation 3}$$

(d) The owner or operator of a new affected source subject to § 63.802(b)(1) may comply with those provisions by using any of the following methods:

(1) Calculate the average VHAP content across all finishing materials used at the facility using Equation 1, and maintain a value of E no greater than 0.8;

(2) Use compliant finishing materials according to the following criteria:

(i) Demonstrate that each sealer and topcoat has a VHAP content of no more than 0.8 kg VHAP/kg solids (0.8 lb VHAP/lb solids), as applied, each stain has a VHAP content of no more than 1.0 kg VHAP/kg solids (1.0 lb VHAP/lb solids), as applied, and each thinner contains no more than 10.0 percent VHAP by weight;

(ii) Demonstrate that each washcoat, basecoat, and enamel that is purchased pre-made, that is, it is not formulated onsite by thinning another finishing material, has a VHAP content of no more than 0.8 kg VHAP/kg solids (0.8 lb VHAP/lb solids), as applied, and each thinner contains no more than 10.0 percent VHAP by weight; and

(iii) Demonstrate that each washcoat, basecoat, and enamel that is formulated onsite is formulated using a finishing material containing no more than 0.8 kg VHAP/kg solids (0.8 lb VHAP/lb solids) and a thinner containing no more than 3.0 percent HAP by weight.

(3) Use a control system with an overall control efficiency (R) such that the value of E_{ac} in Equation 4 is no greater than 0.8.

$$R = [(E_{bc} - E_{ac}) / E_{bc}] (100) \quad \text{Equation 4}$$

The value of E_{bc} in Equation 4 shall be calculated using Equation 1; or

(4) Use any combination of an averaging approach, as described in (d)(1), compliant finishing materials, as described in (d)(2), and a control system, as described in (d)(3).

(e) The owner or operator of a new affected source subject to § 63.802(b)(2) shall comply with the provisions using either of the following methods:

(1) Use compliant contact adhesives with a VHAP content no greater than 0.2 kg VHAP/kg solids (0.2 lb VHAP/lb solids), as applied; or

(2) Use a control system with an overall control efficiency (R) such that the value of G_{ac} in Equation 3 is no greater than 0.2.

(f) *Initial compliance.* (1) Owners or operators of an affected source subject to the provisions of § 63.802 (a)(1) or (b)(1) that comply through the procedures established in § 63.804 (a)(1) or (d)(1) shall submit the results of the averaging calculation (Equation 1) for the first month with the initial compliance status report required by § 63.807(b). The first month's calculation shall include data for the entire month in which the compliance date falls. For example, if the source's compliance date is November 21, 1997, the averaging calculation shall include data from November 1, 1997 to November 30, 1997.

(2) Owners or operators of an affected source subject to the provisions of § 63.802 (a)(1) or (b)(1) that comply through the procedures established in § 63.804 (a)(2) or (d)(2) shall submit an initial compliance status report, as required by § 63.807(b), stating that compliant stains, washcoats, sealers, topcoats, basecoats, enamels, and thinners, as applicable, are being used by the affected source.

(3) Owners or operators of an affected source subject to the provisions of § 63.802 (a)(1) or (b)(1) that are complying through the procedures established in § 63.804 (a)(2) or (d)(2) and are applying coatings using continuous coaters shall demonstrate initial compliance by:

(i) Submitting an initial compliance status report, as required by § 63.807(b), stating that compliant coatings, as determined by the VHAP content of the coating in the reservoir and the VHAP content as calculated from records, and compliant thinners are being used; or

(ii) Submitting an initial compliance status report, as required by § 63.807(b), stating that compliant coatings, as determined by the VHAP content of the coating in the reservoir, are being used; the viscosity of the coating in the reservoir is being monitored; and compliant thinners are being used. The affected source shall also submit data that demonstrate that viscosity is an appropriate parameter for demonstrating compliance.

(4) Owners or operators of an affected source subject to the provisions of § 63.802 (a)(1) or (b)(1) that comply through the procedures established in § 63.804 (a)(3) or (d)(3) shall demonstrate initial compliance by:

(i) Submitting a monitoring plan that identifies each operating parameter to be monitored for the capture device and discusses why each parameter is appropriate for demonstrating continuous compliance;

(ii) Conducting an initial performance test as required under § 63.7 using the procedures and test methods listed in § 63.7 and § 63.805 (c) and (d) or (e);

(iii) Calculating the overall control efficiency (R) following the procedures in § 63.805 (d) or (e); and

(iv) Determining those operating conditions critical to determining compliance and establishing one or more operating parameters that will ensure compliance with the standard.

(A) For compliance with a thermal incinerator, minimum combustion temperature shall be the operating parameter.

(B) For compliance with a catalytic incinerator equipped with a fixed catalyst bed, the minimum gas temperature both upstream and downstream of the catalyst bed shall be the operating parameter.

(C) For compliance with a catalytic incinerator equipped with a fluidized catalyst bed, the minimum gas temperature upstream of the catalyst bed and the pressure drop across the cata-

lyst bed shall be the operating parameters.

(D) For compliance with a carbon adsorber, the operating parameters shall be the total regeneration mass stream flow for each regeneration cycle and the carbon bed temperature after each regeneration, or the concentration level of organic compounds exiting the adsorber, unless the owner or operator requests and receives approval from the Administrator to establish other operating parameters.

(E) For compliance with a control device not listed in this section, one or more operating parameter values shall be established using the procedures identified in § 63.804(g)(4)(vi).

(v) Owners or operators complying with § 63.804(f)(4) shall calculate each site-specific operating parameter value as the arithmetic average of the maximum or minimum operating parameter values, as appropriate, that demonstrate compliance with the standards, during the three test runs required by § 63.805(c)(1).

(5) Owners or operators of an affected source subject to the provisions of § 63.802 (a)(2) or (b)(2) that comply through the procedures established in § 63.804 (b), (c)(1), or (e)(1), shall submit an initial compliance status report, as required by § 63.807(b), stating that compliant contact adhesives are being used by the affected source.

(6) Owners or operators of an affected source subject to the provisions of § 63.802 (a)(2)(ii) or (b)(2) that comply through the procedures established in § 63.804 (c)(2) or (e)(2), shall demonstrate initial compliance by:

(i) Submitting a monitoring plan that identifies each operating parameter to be monitored for the capture device and discusses why each parameter is appropriate for demonstrating continuous compliance;

(ii) Conducting an initial performance test as required under § 63.7 using the procedures and test methods listed in § 63.7 and § 63.805 (c) and (d) or (e);

(iii) Calculating the overall control efficiency (R) following the procedures in § 63.805 (d) or (e); and

(iv) Determining those operating conditions critical to determining compliance and establishing one or more

operating parameters that will ensure compliance with the standard.

(A) For compliance with a thermal incinerator, minimum combustion temperature shall be the operating parameter.

(B) For compliance with a catalytic incinerator equipped with a fixed catalyst bed, the minimum gas temperature both upstream and downstream of the catalyst shall be the operating parameter.

(C) For compliance with a catalytic incinerator equipped with a fluidized catalyst bed, the minimum gas temperature upstream of the catalyst bed and the pressure drop across the catalyst bed shall be the operating parameters.

(v) Owners or operators complying with § 63.804(f)(6) shall calculate each site-specific operating parameter value as the arithmetic average of the maximum or minimum operating values as appropriate, that demonstrate compliance with the standards, during the three test runs required by § 63.805(c)(1).

(7) Owners or operators of an affected source subject to the provisions of § 63.802 (a)(3) or (b)(3) shall submit an initial compliance status report, as required by § 63.807(b), stating that compliant strippable spray booth coatings are being used by the affected source.

(8) Owners or operators of an affected source subject to the work practice standards in § 63.803 shall submit an initial compliance status report, as required by § 63.807(b), stating that the work practice implementation plan has been developed and procedures have been established for implementing the provisions of the plan.

(g) *Continuous compliance demonstrations.* (1) Owners or operators of an affected source subject to the provisions of § 63.802 (a)(1) or (b)(1) that comply through the procedures established in § 63.804 (a)(1) or (d)(1) shall demonstrate continuous compliance by submitting the results of the averaging calculation (Equation 1) for each month within that semiannual period and submitting a compliance certification with the semiannual report required by § 63.807(c).

(i) The compliance certification shall state that the value of (E), as calculated by Equation 1, is no greater

than 1.0 for existing sources or 0.8 for new sources. An affected source is in violation of the standard if E is greater than 1.0 for existing sources or 0.8 for new sources for any month. A violation of the monthly average is a separate violation of the standard for each day of operation during the month, unless the affected source can demonstrate through records that the violation of the monthly average can be attributed to a particular day or days during the period.

(ii) The compliance certification shall be signed by a responsible official of the company that owns or operates the affected source.

(2) Owners or operators of an affected source subject to the provisions of § 63.802 (a)(1) or (b)(1) that comply through the procedures established in § 63.804 (a)(2) or (d)(2) shall demonstrate continuous compliance by using compliant coatings and thinners, maintaining records that demonstrate the coatings and thinners are compliant, and submitting a compliance certification with the semiannual report required by § 63.807(c).

(i) The compliance certification shall state that compliant stains, washcoats, sealers, topcoats, basecoats, enamels, and thinners, as applicable, have been used each day in the semiannual reporting period or should otherwise identify the periods of noncompliance and the reasons for noncompliance. An affected source is in violation of the standard whenever a noncompliant coating, as demonstrated by records or by a sample of the coating, is used.

(ii) The compliance certification shall be signed by a responsible official of the company that owns or operates the affected source.

(3) Owners or operators of an affected source subject to the provisions of § 63.802 (a)(1) or (b)(1) that are complying through the procedures established in § 63.804 (a)(2) or (d)(2) and are applying coatings using continuous coaters shall demonstrate continuous compliance by following the procedures in paragraph (g)(3) (i) or (ii) of this section.

(i) Using compliant coatings, as determined by the VHAP content of the coating in the reservoir and the VHAP content as calculated from records,

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using compliant thinners, and submitting a compliance certification with the semiannual report required by § 63.807(c).

(A) The compliance certification shall state that compliant coatings have been used each day in the semiannual reporting period, or should otherwise identify the days of noncompliance and the reasons for noncompliance. An affected source is in violation of the standard whenever a noncompliant coating, as determined by records or by a sample of the coating, is used. Use of a noncompliant coating is a separate violation for each day the noncompliant coating is used.

(B) The compliance certification shall be signed by a responsible official of the company that owns or operates the affected source.

(ii) Using compliant coatings, as determined by the VHAP content of the coating in the reservoir, using compliant thinners, maintaining a viscosity of the coating in the reservoir that is no less than the viscosity of the initial coating by monitoring the viscosity with a viscosity meter or by testing the viscosity of the initial coating and retesting the coating in the reservoir each time solvent is added, maintaining records of solvent additions, and submitting a compliance certification with the semiannual report required by § 63.807(c).

(A) The compliance certification shall state that compliant coatings, as determined by the VHAP content of the coating in the reservoir, have been used each day in the semiannual reporting period. Additionally, the certification shall state that the viscosity of the coating in the reservoir has not been less than the viscosity of the initial coating, that is, the coating that is initially mixed and placed in the reservoir, for any day in the semiannual reporting period.

(B) The compliance certification shall be signed by a responsible official of the company that owns or operates the affected source.

(C) An affected source is in violation of the standard when a sample of the as-applied coating exceeds the applicable limit established in § 63.804 (a)(2) or (d)(2), as determined using EPA Method 311, or the viscosity of the coating in

the reservoir is less than the viscosity of the initial coating.

(4) Owners or operators of an affected source subject to the provisions of § 63.802 (a)(1) or (b)(1) that comply through the procedures established in § 63.804 (a)(3) or (d)(3) shall demonstrate continuous compliance by installing, calibrating, maintaining, and operating the appropriate monitoring equipment according to manufacturer's specifications. The owner or operator shall also submit the excess emissions and continuous monitoring system performance report and summary report required by § 63.807(d) and § 63.10(e) of subpart A.

(i) Where a capture/control device is used, a device to monitor each site-specific operating parameter established in accordance with § 63.804(f)(6)(i) is required.

(ii) Where an incinerator is used, a temperature monitoring device equipped with a continuous recorder is required.

(A) Where a thermal incinerator is used, a temperature monitoring device shall be installed in the firebox or in the ductwork immediately downstream of the firebox in a position before any substantial heat exchange occurs.

(B) Where a catalytic incinerator equipped with a fixed catalyst bed is used, temperature monitoring devices shall be installed in the gas stream immediately before and after the catalyst bed.

(C) Where a catalytic incinerator equipped with a fluidized catalyst bed is used, a temperature monitoring device shall be installed in the gas stream immediately before the bed. In addition, a pressure monitoring device shall be installed to determine the pressure drop across the catalyst bed. The pressure drop shall be measured monthly at a constant flow rate.

(iii) Where a carbon adsorber is used one of the following is required:

(A) An integrating stream flow monitoring device having an accuracy of ± 10 percent, capable of recording the total regeneration stream mass flow for each regeneration cycle; and a carbon bed temperature monitoring device, having an accuracy of ± 1 percent of the temperature being monitored or ± 0.5 °C,

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whichever is greater, and capable of recording the carbon bed temperature after each regeneration and within 15 minutes of completing any cooling cycle;

(B) An organic monitoring device, equipped with a continuous recorder, to indicate the concentration level of organic compounds exiting the carbon adsorber; or

(C) Any other monitoring device that has been approved by the Administrator in accordance with § 63.804(f)(4)(iv)(D).

(iv) Owners or operators of an affected source shall not operate the capture or control device at a daily average value greater than or less than (as appropriate) the operating parameter values. The daily average value shall be calculated as the average of all values for a monitored parameter recorded during the operating day.

(v) Owners or operators of an affected source that are complying through the use of a catalytic incinerator equipped with a fluidized catalyst bed shall maintain a constant pressure drop, measured monthly, across the catalyst bed.

(vi) An owner or operator who uses a control device not listed in § 63.804(f)(4) shall submit, for the Administrator's approval, a description of the device, test data verifying performance, and appropriate site-specific operating parameters that will be monitored to demonstrate continuous compliance with the standard.

(5) Owners or operators of an affected source subject to the provisions of § 63.802 (a)(2) (i) or (ii) or (b)(2) that comply through the procedures established in § 63.804 (b), (c)(1), or (e)(1), shall submit a compliance certification with the semiannual report required by § 63.807(c).

(i) The compliance certification shall state that compliant contact and/or foam adhesives have been used each day in the semiannual reporting period, or should otherwise identify each day noncompliant contact and/or foam adhesives were used. Each day a non-compliant contact or foam adhesive is used is a single violation of the standard.

(ii) The compliance certification shall be signed by a responsible official

of the company that owns or operates the affected source.

(6) Owners or operators of an affected source subject to the provisions of § 63.802 (a)(2)(ii) or (b)(2) that comply through the procedures established in § 63.804 (c)(2) or (e)(2), shall demonstrate continuous compliance by installing, calibrating, maintaining, and operating the appropriate monitoring equipment according to the manufacturer's specifications. The owner or operator shall also submit the excess emissions and continuous monitoring system performance report and summary report required by § 63.807(d) and § 63.10(e) of subpart A of this part.

(i) Where a capture/control device is used, a device to monitor each site-specific operating parameter established in accordance with § 63.804(f)(6)(i) is required.

(ii) Where an incinerator is used, a temperature monitoring device equipped with a continuous recorder is required.

(A) Where a thermal incinerator is used, a temperature monitoring device shall be installed in the firebox or in the ductwork immediately downstream of the firebox in a position before any substantial heat exchange occurs.

(B) Where a catalytic incinerator equipped with a fixed catalyst bed is used, temperature monitoring devices shall be installed in the gas stream immediately before and after the catalyst bed.

(C) Where a catalytic incinerator equipped with a fluidized catalyst bed is used, a temperature monitoring device shall be installed in the gas stream immediately before the bed. In addition, a pressure monitoring device shall be installed to measure the pressure drop across the catalyst bed. The pressure drop shall be measured monthly at a constant flow rate.

(iii) Where a carbon adsorber is used one of the following is required:

(A) An integrating stream flow monitoring device having an accuracy of ± 10 percent, capable of recording the total regeneration stream mass flow for each regeneration cycle; and a carbon bed temperature monitoring device, having an accuracy of ± 1 percent of the temperature being monitored or ± 0.5 °C,

whichever is greater, and capable of recording the carbon bed temperature after each regeneration and within 15 minutes of completing any cooling cycle;

(B) An organic monitoring device, equipped with a continuous recorder, to indicate the concentration level of organic compounds exiting the carbon adsorber; or

(C) Any other monitoring device that has been approved by the Administrator in accordance with § 63.804(f)(4)(iv)(D).

(iv) Owners or operators of an affected source shall not operate the capture or control device at a daily average value greater than or less than (as appropriate) the operating parameter values. The daily average value shall be calculated as the average of all values for a monitored parameter recorded during the operating day.

(v) Owners or operators of an affected source that are complying through the use of a catalytic incinerator equipped with a fluidized catalyst bed shall maintain a constant pressure drop, measured monthly, across the catalyst bed.

(vi) An owner or operator using a control device not listed in this section shall submit to the Administrator a description of the device, test data verifying the performance of the device, and appropriate operating parameter values that will be monitored to demonstrate continuous compliance with the standard. Compliance using this device is subject to the Administrator's approval.

(7) Owners or operators of an affected source subject to the provisions of § 63.802 (a)(3) or (b)(3) shall submit a compliance certification with the semi-annual report required by § 63.807(c).

(i) The compliance certification shall state that compliant strippable spray booth coatings have been used each day in the semiannual reporting period, or should otherwise identify each day noncompliant materials were used. Each day a noncompliant strippable booth coating is used is a single violation of the standard.

(ii) The compliance certification shall be signed by a responsible official of the company that owns or operates the affected source.

(8) Owners or operators of an affected source subject to the work practice standards in § 63.803 shall submit a compliance certification with the semi-annual report required by § 63.807(c).

(i) The compliance certification shall state that the work practice implementation plan is being followed, or should otherwise identify the provisions of the plan that have not been implemented and each day the provisions were not implemented. During any period of time that an owner or operator is required to implement the provisions of the plan, each failure to implement an obligation under the plan during any particular day is a violation.

(ii) The compliance certification shall be signed by a responsible official of the company that owns or operates the affected source.

§ 63.805 Performance test methods.

(a) The EPA Method 311 of appendix A of part 63 shall be used in conjunction with formulation data to determine the VHAP content of the liquid coating. Formulation data shall be used to identify VHAP present in the coating. The EPA Method 311 shall then be used to quantify those VHAP identified through formulation data. The EPA Method 311 shall not be used to quantify HAP such as styrene and formaldehyde that are emitted during the cure. The EPA Method 24 (40 CFR part 60, appendix A) shall be used to determine the solids content by weight and the density of coatings. If it is demonstrated to the satisfaction of the Administrator that a coating does not release VOC or HAP byproducts during the cure, for example, all VOC and HAP present in the coating is solvent, then batch formulation information shall be accepted. The owner or operator of an affected source may request approval from the Administrator to use an alternative method for determining the VHAP content of the coating. In the event of any inconsistency between the EPA Method 24 or Method 311 test data and a facility's formulation data, that is, if the EPA Method 24/311 value is higher, the EPA Method 24/311 test shall govern unless after consultation, a regulated source could demonstrate to the satisfaction of the enforcement agency that the formulation data were

correct. Sampling procedures shall follow the guidelines presented in “Standard Procedures for Collection of Coating and Ink Samples for VOC Content Analysis by Reference Method 24 and Reference Method 24A,” EPA-340/1-91-010. (Docket No. A-93-10, Item No. IV-A-1).

(b) Owners or operators demonstrating compliance in accordance with § 63.804 (f)(4) or (f)(6) and § 63.804 (g)(4) or (g)(6), or complying with any of the other emission limits of § 63.802 by operating a capture or control device shall determine the overall control efficiency of the control system (R) as the product of the capture and control device efficiency, using the test methods cited in § 63.805(c) and the procedures in § 63.805 (d) or (e).

(c) When an initial compliance demonstration is required by § 63.804 (f)(4) or (f)(6) of this subpart, the procedures in paragraphs (c)(1) through (c)(6) of this section shall be used in determining initial compliance with the provisions of this subpart.

(1) The EPA Method 18 (40 CFR part 60, appendix A) shall be used to determine the HAP concentration of gaseous air streams. The test shall consist of three separate runs, each lasting a minimum of 30 minutes.

(2) The EPA Method 1 or 1A (40 CFR part 60, appendix A) shall be used for sample and velocity traverses.

(3) The EPA Method 2, 2A, 2C, or 2D (40 CFR part 60, appendix A) shall be used to measure velocity and volumetric flow rates.

(4) The EPA Method 3 (40 CFR part 60, appendix A) shall be used to analyze the exhaust gases.

(5) The EPA Method 4 (40 CFR part 60, appendix A) shall be used to measure the moisture in the stack gas.

(6) The EPA Methods 2, 2A, 2C, 2D, 3, and 4 shall be performed, as applicable, at least twice during each test period.

(d) Each owner or operator of an affected source demonstrating compliance in accordance with § 63.804 (f)(4) or

(f)(6) shall perform a gaseous emission test using the following procedures:

(1) Construct the overall HAP emission reduction system so that all volumetric flow rates and total HAP emissions can be accurately determined by the applicable test methods specified in § 63.805(c) (1) through (6);

(2) Determine capture efficiency from the affected emission point(s) by capturing, venting, and measuring all HAP emissions from the affected emission point(s). During a performance test, the owner or operator shall isolate affected emission point(s) located in an area with other nonaffected gaseous emission sources from all other gaseous emission point(s) by any of the following methods:

(i) Build a temporary total enclosure (see § 63.801) around the affected emission point(s); or

(ii) Use the building that houses the process as the enclosure (see § 63.801);

(iii) Use any alternative protocol and test method provided they meet either the requirements of the data quality objective (DQO) approach or the lower confidence level (LCL) approach (see § 63.801);

(iv) Shut down all nonaffected HAP emission point(s) and continue to exhaust fugitive emissions from the affected emission point(s) through any building ventilation system and other room exhausts such as drying ovens. All exhaust air must be vented through stacks suitable for testing; or

(v) Use another methodology approved by the Administrator provided it complies with the EPA criteria for acceptance under part 63, appendix A, Method 301.

(3) Operate the control device with all affected emission points that will subsequently be delivered to the control device connected and operating at maximum production rate;

(4) Determine the efficiency (F) of the control device using the following equation:

$$F = \frac{\sum_{i=1}^n Q_{bi} C_{bi} - \sum_{j=1}^p Q_{aj} C_{aj}}{\sum_{i=1}^n Q_{bi} C_{bi}} \quad (\text{Equation 5})$$

(5) Determine the efficiency (N) of the capture system using the following equation:

$$N = \frac{\sum_{i=1}^n Q_{di} C_{di}}{\sum_{i=1}^n Q_{di} C_{di} + \sum_{k=1}^p Q_{fk} C_{fk}} \quad (\text{Equation 6})$$

(6) For each affected source complying with §63.802(a)(1) in accordance with §63.804(a)(3), compliance is demonstrated if the product of (F×N)(100) yields a value (R) such that the value of E_{ac} in Equation 2 is no greater than 1.0.

(7) For each new affected source complying with §63.802(b)(1) in accordance with §63.804(d)(3), compliance is demonstrated if the product of (F×N)(100) yields a value (R) such that the value of E_{ac} in Equation 4 is no greater than 0.8.

(8) For each affected source complying with §63.802(a)(2)(ii) in accordance with §63.804(c)(2), compliance is demonstrated if the product of (F×N)(100) yields a value (R) such that the value of G_{ac} in Equation 3 is no greater than 1.0.

(9) For each new affected source complying with §63.802(b)(2) in accordance with §63.804(e)(2), compliance is demonstrated if the product of (F×N)(100) yields a value (R) such that the value of G_{ac} in Equation 3 is no greater than 0.2.

(e) An alternative method to the compliance method in §63.805(d) is the installation of a permanent total enclosure around the affected emission point(s). A permanent total enclosure presents prima facie evidence that all HAP emissions from the affected emis-

sion point(s) are directed to the control device. Each affected source that complies using a permanent total enclosure shall:

(1) Demonstrate that the total enclosure meets the requirements in paragraphs (e)(1) (i) through (iv). The owner or operator of an enclosure that does not meet these requirements may apply to the Administrator for approval of the enclosure as a total enclosure on a case-by-case basis. The enclosure shall be considered a total enclosure if it is demonstrated to the satisfaction of the Administrator that all HAP emissions from the affected emission point(s) are contained and vented to the control device. The requirements for automatic approval are as follows:

(i) The total area of all natural draft openings shall not exceed 5 percent of the total surface area of the total enclosure's walls, floor, and ceiling;

(ii) All sources of emissions within the enclosure shall be a minimum of four equivalent diameters away from each natural draft opening;

(iii) The average inward face velocity (FV) across all natural draft openings shall be a minimum of 3,600 meters per hour as determined by the following procedures:

(A) All forced makeup air ducts and all exhaust ducts are constructed so

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that the volumetric flow rate in each can be accurately determined by the test methods specified in § 63.805 (c)(2) and (3). Volumetric flow rates shall be

calculated without the adjustment normally made for moisture content; and

(B) Determine FV by the following equation:

$$FV = \frac{\sum_{j=1}^n Q_{out\ j} - \sum_{i=1}^p Q_{in\ i}}{\sum_{k=1}^q A_k} \quad (\text{Equation 7})$$

(iv) All access doors and windows whose areas are not included as natural draft openings and are not included in the calculation of FV shall be closed during routine operation of the process.

(2) Determine the control device efficiency using Equation (5), and the test methods and procedures specified in § 63.805 (c)(1) through (6).

(3) For each affected source complying with § 63.802(a)(1) in accordance with § 63.804(a)(3), compliance is demonstrated if:

(i) The installation of a permanent total enclosure is demonstrated (N=1);

(ii) The value of F is determined from Equation (5); and

(iii) The product of (F×N)(100) yields a value (R) such that the value of E_{ac} in Equation 2 is no greater than 1.0.

(4) For each new affected source complying with § 63.802(b)(1) in accordance with § 63.804(d)(3), compliance is demonstrated if:

(i) The installation of a permanent total enclosure is demonstrated (N = 1);

(ii) The value of F is determined from Equation (5); and

(iii) The product of (F×N)(100) yields a value (R) such that the value of E_{ac} in Equation 4 is no greater than 0.8.

(5) For each affected source complying with § 63.802(a)(2)(ii) in accordance with § 63.804(c)(2), compliance is demonstrated if:

(i) The installation of a permanent total enclosure is demonstrated (N=1);

(ii) The value of F is determined from Equation (5); and

(iii) The product of (F×N)(100) yields a value (R) such that the value of G_{ac} in Equation 3 is no greater than 1.0.

(6) For each new affected source complying with § 63.802(b)(2) in accordance with § 63.804(e)(2), compliance is demonstrated if:

(i) The installation of a permanent total enclosure is demonstrated (N=1);

(ii) The value of F is determined from Equation (5); and

(iii) The product of (F×N)(100) yields a value (R) such that the value of G_{ac} in Equation 3 is no greater than 0.2.

§ 63.806 Recordkeeping requirements.

(a) The owner or operator of an affected source subject to this subpart shall fulfill all recordkeeping requirements of § 63.10 of subpart A, according to the applicability criteria in § 63.800(d) of this subpart.

(b) The owner or operator of an affected source subject to the emission limits in § 63.802 of this subpart shall maintain records of the following:

(1) A certified product data sheet for each finishing material, thinner, contact adhesive, and strippable spray booth coating subject to the emission limits in § 63.802; and

(2) The VHAP content, in kg VHAP/kg solids (lb VHAP/lb solids), as applied, of each finishing material and contact adhesive subject to the emission limits in § 63.802; and

(3) The VOC content, in kg VOC/kg solids (lb VOC/lb solids), as applied, of each strippable booth coating subject to the emission limits in § 63.802 (a)(3) or (b)(3).

(c) The owner or operator of an affected source following the compliance method in § 63.804 (a)(1) or (d)(1) shall maintain copies of the averaging calculation for each month following the

compliance date, as well as the data on the quantity of coatings and thinners used that is necessary to support the calculation of E in Equation 1.

(d) The owner or operator of an affected source following the compliance procedures of § 63.804 (f)(3)(ii) and (g)(3)(ii) shall maintain the records required by § 63.806(b) as well as records of the following:

- (1) Solvent and coating additions to the continuous coater reservoir;
- (2) Viscosity measurements; and
- (3) Data demonstrating that viscosity is an appropriate parameter for demonstrating compliance.

(e) The owner or operator of an affected source subject to the work practice standards in § 63.803 of this subpart shall maintain onsite the work practice implementation plan and all records associated with fulfilling the requirements of that plan, including, but not limited to:

- (1) Records demonstrating that the operator training program required by § 63.803(b) is in place;
- (2) Records collected in accordance with the inspection and maintenance plan required by § 63.803(c);
- (3) Records associated with the cleaning solvent accounting system required by § 63.803(d);
- (4) Records associated with the limitation on the use of conventional air spray guns showing total finishing material usage and the percentage of finishing materials applied with conventional air spray guns for each semiannual period as required by § 63.803(h)(5).

(5) Records associated with the formulation assessment plan required by § 63.803(l); and

(6) Copies of documentation such as logs developed to demonstrate that the other provisions of the work practice implementation plan are followed.

(f) The owner or operator of an affected source following the compliance method of § 63.804 (f)(4) or (g)(4) shall maintain copies of the calculations demonstrating that the overall control efficiency (R) of the control system results in the value of E_{ac} required by Equations 2 or 4, records of the operating parameter values, and copies of the semiannual compliance reports required by § 63.807(d).

(g) The owner or operator of an affected source following the compliance method of § 63.804 (f)(6) or (g)(6), shall maintain copies of the calculations demonstrating that the overall control efficiency (R) of the control system results in the applicable value of G_{ac} calculated using Equation 3, records of the operating parameter values, and copies of the semiannual compliance reports required by § 63.807(d).

(h) The owner or operator of an affected source subject to the emission limits in § 63.802 and following the compliance provisions of § 63.804(f) (1), (2), (3), (5), (7) and (8) and § 63.804(g) (1), (2), (3), (5), (7), and (8) shall maintain records of the compliance certifications submitted in accordance with § 63.807(c) for each semiannual period following the compliance date.

(i) The owner or operator of an affected source shall maintain records of all other information submitted with the compliance status report required by § 63.9(h) and § 63.807(b) and the semiannual reports required by § 63.807(c).

(j) The owner or operator of an affected source shall maintain all records in accordance with the requirements of § 63.10(b)(1).

§ 63.807 Reporting requirements.

(a) The owner or operator of an affected source subject to this subpart shall fulfill all reporting requirements of § 63.7 through § 63.10 of subpart A (General Provisions) according to the applicability criteria in § 63.800(d) of this subpart.

(b) The owner or operator of an affected source demonstrating compliance in accordance with § 63.804(f) (1), (2), (3), (5), (7) and (8) shall submit the compliance status report required by § 63.9(h) of subpart A (General Provisions) no later than 60 days after the compliance date. The report shall include the information required by § 63.804(f) (1), (2), (3), (5), (7), and (8) of this subpart.

(c) The owner or operator of an affected source demonstrating compliance in accordance with § 63.804(g) (1), (2), (3), (5), (7), and (8) shall submit a report covering the previous 6 months of wood furniture manufacturing operations:

(1) The first report shall be submitted 30 calendar days after the end of the first 6-month period following the compliance date.

(2) Subsequent reports shall be submitted 30 calendar days after the end of each 6-month period following the first report.

(3) The semiannual reports shall include the information required by § 63.804(g) (1), (2), (3), (5), (7), and (8), a statement of whether the affected source was in compliance or non-compliance, and, if the affected source was in noncompliance, the measures taken to bring the affected source into compliance.

(4) The frequency of the reports required by paragraph (c) of this section shall not be reduced from semiannually regardless of the history of the owner's or operator's compliance status.

(d) The owner or operator of an affected source demonstrating compliance in accordance with § 63.804(g) (4) and (6) of this subpart shall submit the excess emissions and continuous monitoring system performance report and summary report required by § 63.10(e) of subpart A. The report shall include the monitored operating parameter values required by § 63.804(g) (4) and (6). If the source experiences excess emissions, the report shall be submitted quarterly for at least 1 year after the excess

emissions occur and until a request to reduce reporting frequency is approved, as indicated in § 63.10(e)(3)(C). If no excess emissions occur, the report shall be submitted semiannually.

(e) The owner or operator of an affected source required to provide a written notification under § 63.803(1)(4) shall include in the notification one or more statements that explains the reasons for the usage increase. The notification shall be submitted no later than 30 calendar days after the end of the annual period in which the usage increase occurred.

§ 63.808 Delegation of authority.

(a) In delegating implementation and enforcement authority to a State under § 112(d) of the Clean Air Act, the authorities contained in paragraph (b) of this section shall be retained by the Administrator and not transferred to a State.

(b) The authority conferred in § 63.804(f)(4)(iv) (D) and (E), § 63.804(g)(4)(iii)(C), § 63.804(g)(4)(vi), § 63.804(g)(6)(vi), § 63.805(a), § 63.805(d)(2)(V), and § 63.805(e)(1) shall not be delegated to any State.

§§ 63.809–63.819 [Reserved]

TABLES TO SUBPART JJ TO PART 63

TABLE 1—GENERAL PROVISIONS APPLICABILITY TO SUBPART JJ

Reference	Applies to subpart JJ	Comment
63.1(a)	Yes	Subpart JJ specifies applicability.
63.1(b)(1)	No	
63.1(b)(2)	Yes	
63.1(b)(3)	Yes	Subpart JJ specifies applicability.
63.1(c)(1)	No	
63.1(c)(2)	No	
63.1(c)(4)	Yes	Area sources are not subject to subpart JJ.
63.1(c)(5)	Yes	
63.1(e)	Yes	
63.2	Yes	Additional terms are defined in 63.801(a) of subpart JJ. When overlap between subparts A and JJ occurs, subpart JJ takes precedence.
63.3	Yes	
63.4	Yes	
63.5	Yes	Other units used in subpart JJ are defined in 63.801(b).
63.6(a)	Yes	
63.6(b)(1)	Yes	
63.6(b)(2)	Yes	May apply when standards are proposed under Section 112(f) of the CAA.
63.6(b)(3)	Yes	
63.6(b)(4)	No	
63.6(b)(5)	Yes	
63.6(b)(7)	Yes	
63.6(c)(1)	Yes	
63.6(c)(2)	No	
63.6(c)(5)	Yes	
63.6(e)(1)	Yes	
63.6(e)(2)	Yes	

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TABLE 1—GENERAL PROVISIONS APPLICABILITY TO SUBPART JJ—Continued

Reference	Applies to sub-part JJ	Comment	
63.6(e)(3)	Yes	Applies only to affected sources using a control device to comply with the rule. Affected sources complying through the procedures specified in 63.804 (a)(1), (a)(2), (b), (c)(1), (d)(1), (d)(2), (e)(1), and (e)(2) are subject to the emission standards at all times, including periods of startup, shutdown, and malfunction.	
63.6(f)(1)	No		
63.6(f)(2)	Yes		
63.6(f)(3)	Yes		
63.6(g)	Yes		
63.6(h)	No.		
63.6 (i)(1)–(i)(3)	Yes		
63.6(i)(4)(i)	Yes		
63.6(i)(4)(ii)	No.		
63.6 (i)(5)–(i)(14)	Yes		
63.6(i)(16)	Yes		
63.6(j)	Yes		
63.7	Yes		
63.8	Yes		
63.9(a)	Yes		
63.9(b)	Yes		
63.9(c)	Yes	Applies only to affected sources using a control device to comply with the rule.	
63.9(d)	Yes		
63.9(e)	Yes	Applies only to affected sources using a control device to comply with the rule.	
63.9(f)	No		
63.9(g)	Yes	Applies only to affected sources using a control device to comply with the rule.	
63.9(h)	Yes		
63.9(i)	Yes	63.9(h)(2)(ii) applies only to affected sources using a control device to comply with the rule.	
63.9(j)	Yes		
63.10(a)	Yes		
63.10(b)(1)	Yes		
63.10(b)(2)	Yes		Applies only to affected sources using a control device to comply with the rule.
63.10(b)(3)	Yes		
63.10(c)	Yes		
63.10(d)(1)	Yes		
63.10(d)(2)	Yes		
63.10(d)(3)	No		
63.10(d)(4)	Yes		
63.10(d)(5)	Yes		
63.10(e)	Yes		Applies only to affected sources using a control device to comply with the rule.
63.10(f)	Yes		
63.11	No		
63.12–63.15	Yes		

TABLE 2.—LIST OF VOLATILE HAZARDOUS AIR POLLUTANTS

Chemical name	CAS No.
Acetaldehyde	75070
Acetamide	60355
Acetonitrile	75058
Acetophenone	98862
2-Acetylaminofluorine	53963
Acrolein	107028
Acrylamide	79061
Acrylic acid	79107
Acrylonitrile	107131
Allyl chloride	107051
4-Aminobiphenyl	92671
Aniline	62533
o-Anisidine	90040
Benzene	71432
Benzidine	92875
Benzotrifluoride	98077
Benzyl chloride	100447
Biphenyl	92524
Bis (2-ethylhexyl) phthalate (DEHP)	117817
Bis (chloromethyl) ether	542881

TABLE 2.—LIST OF VOLATILE HAZARDOUS AIR POLLUTANTS—Continued

Chemical name	CAS No.
Bromoform	75252
1,3-Butadiene	106990
Carbon disulfide	75150
Carbon tetrachloride	56235
Carbonyl sulfide	463581
Catechol	120809
Chloroacetic acid	79118
2-Chloroacetophenone	532274
Chlorobenzene	108907
Chloroform	67663
Chloromethyl methyl ether	107302
Chloroprene	126998
Cresols (isomers and mixture)	131973
o-Cresol	95487
m-Cresol	108394
p-Cresol	106445
Cumene	98828
2,4-D (2,4-Dichlorophenoxyacetic acid, including salts and esters)	94757

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TABLE 2.—LIST OF VOLATILE HAZARDOUS AIR POLLUTANTS—Continued

Chemical name	CAS No.
DDE (1,1-Dichloro-2,2-bis(p-chlorophenyl)ethylene)	72559
Diazomethane	334883
Dibenzofuran	132649
1,2-Dibromo-3-chloropropane	96128
Dibutylphthalate	84742
1,4-Dichlorobenzene	106467
3,3'-Dichlorobenzidine	91941
Dichloroethyl ether (Bis(2-chloroethyl)ether)	111444
1,3-Dichloropropene	542756
Diethanolamine	111422
N,N-Dimethylaniline	121697
Diethyl sulfate	64675
3,3'-Dimethoxybenzidine	119904
4-Dimethylaminoazobenzene	60117
3,3'-Dimethylbenzidine	119937
Dimethylcarbamoyl chloride	79447
N,N-Dimethylformamide	68122
1,1-Dimethylhydrazine	57147
Dimethyl phthalate	131113
Dimethyl sulfate	77781
4,6-Dinitro-o-cresol, and salts	534521
2,4-Dinitrophenol	51285
2,4-Dinitrotoluene	121142
1,4-Dioxane (1,4-Diethyleneoxide)	123911
1,2-Diphenylhydrazine	122667
Epichlorohydrin (1-Chloro-2,3-epoxypropane)	106898
1,2-Epoxybutane	106887
Ethyl acrylate	140885
Ethylbenzene	100414
Ethyl carbamate (Urethane)	51796
Ethyl chloride (Chloroethane)	75003
Ethylene dibromide (Dibromoethane)	106934
Ethylene dichloride (1,2-Dichloroethane)	107062
Ethylene glycol	107211
Ethylene oxide	75218
Ethylenethiourea	96457
Ethylidene dichloride (1,1-Dichloroethane)	75343
Formaldehyde	50000
Glycol ethers ^a
Hexachlorobenzene	118741
Hexachloro-1,3-butadiene	87683
Hexachloroethane	67721
Hexamethylene-1,6-diisocyanate	822060
Hexamethylphosphoramide	680319
Hexane	110543
Hydrazine	302012
Hydroquinone	123319
Isophorone	78591
Maleic anhydride	108316
Methanol	67561
Methyl bromide (Bromomethane)	74839
Methyl chloride (Chloromethane)	74873
Methyl chloroform (1,1,1-Trichloroethane)	71556
Methyl ethyl ketone (2-Butanone)	78933
Methylhydrazine	60344
Methyl iodide (Iodomethane)	74884
Methyl isobutyl ketone (Hexone)	108101
Methyl isocyanate	624839
Methyl methacrylate	80626
Methyl tert-butyl ether	1634044
4,4'-Methylenebis (2-chloroaniline)	101144

TABLE 2.—LIST OF VOLATILE HAZARDOUS AIR POLLUTANTS—Continued

Chemical name	CAS No.
Methylene chloride (Dichloromethane)	75092
4,4'-Methylenediphenyl diisocyanate (MDI)	101688
4,4'-Methylenedianiline	101779
Naphthalene	91203
Nitrobenzene	98953
4-Nitrobiphenyl	92933
4-Nitrophenol	100027
2-Nitropropane	79469
N-Nitroso-N-methylurea	684935
N-Nitrosodimethylamine	62759
N-Nitrosomorpholine	59892
Phenol	108952
p-Phenylenediamine	106503
Phosgene	75445
Phthalic anhydride	85449
Polychlorinated biphenyls (Aroclors)	1336363
Polycyclic Organic Matter ^b
1,3-Propane sultone	1120714
beta-Propiolactone	57578
Propionaldehyde	123386
Propoxur (Baygon)	114261
Propylene dichloride (1,2-Dichloropropane)	78875
Propylene oxide	75569
1,2-Propylenimine (2-Methyl aziridine)	75558
Quinone	106514
Styrene	100425
Styrene oxide	96093
2,3,7,8-Tetrachlorodibenzo-p-dioxin	1746016
1,1,2,2-Tetrachloroethane	79345
Tetrachloroethylene (Perchloroethylene)	127184
Toluene	108883
2,4-Toluenediamine	95807
Toluene-2,4-diisocyanate	584849
o-Toluidine	95534
1,2,4-Trichlorobenzene	120821
1,1,2-Trichloroethane	79005
Trichloroethylene	79016
2,4,5-Trichlorophenol	95954
2,4,6-Trichlorophenol	88062
Triethylamine	121448
Trifluralin	1582098
2,2,4-Trimethylpentane	540841
Vinyl acetate	108054
Vinyl bromide	593602
Vinyl chloride	75014
Vinylidene chloride (1,1-Dichloroethylene)	75354
Xylenes (isomers and mixture)	1330207
o-Xylene	95476
m-Xylene	108383
p-Xylene	106423

^a Includes mono- and di-ethers of ethylene glycol, diethylene glycols and triethylene glycol; R-(OCH₂CH₂)_n-OR where: n = 1, 2, or 3, R = alkyl or aryl groups
^b R' = R, H, or groups which, when removed, yield glycol ethers with the structure: R-(OCH₂CH₂)_n-OH. Polymers are excluded from the glycol category.
^c Includes organic compounds with more than one benzene ring, and which have a boiling point greater than or equal to 100°C.

[63 FR 71381, Dec. 28, 1998]

TABLE 3.—SUMMARY OF EMISSION LIMITS

Emission point	Existing source	New source
Finishing Operations:		
(a) Achieve a weighted average VHAP content across all coatings (maximum kg VHAP/kg solids [lb VHAP/lb solids], as applied)	^a 1.0	^a 0.8
(b) Use compliant finishing materials (maximum kg VHAP/kg solids [lb VHAP/lb solids], as applied):		
—stains	^a 1.0	^a 1.0
—washcoats	^{a,b} 1.0	^{a,b} 0.8
—sealers	^a 1.0	^a 0.8
—topcoats	^a 1.0	^a 0.8
—basecoats	^{a,b} 1.0	^{a,b} 0.8
—enamels	^{a,b} 1.0	^{a,b} 0.8
—thinners (maximum percent VHAP allowable); or	10.0	10.0
(c) As an alternative, use control device; or	^c 1.0	^c 0.8
(d) Use any combination of (a), (b), and (c)	1.0	0.8
Cleaning Operations:		
Strippable spray booth material (maximum VOC content, kg VOC/kg solids [lb VOC/lb solids])	0.8	0.8
Contact Adhesives:		
(a) Use compliant contact adhesives (maximum kg VHAP/kg solids [lb VHAP/lb solids], as applied) based on following criteria:		
i. For aerosol adhesives, and for contact adhesives applied to nonporous substrates	^d NA	^d NA
ii. For foam adhesives used in products that meet flammability requirements	1.8	0.2
iii. For all other contact adhesives (including foam adhesives used in products that do not meet flammability requirements); or	1.0	0.2
(b) Use a control device	^e 1.0	^e 0.2

^aThe limits refer to the VHAP content of the coating, as applied.

^bWashcoats, basecoats, and enamels must comply with the limits presented in this table if they are purchased premade, that is, if they are not formulated onsite by thinning other finishing materials. If they are formulated onsite, they must be formulated using compliant finishing materials, i.e., those that meet the limits specified in this table, and thinners containing no more than 3.0 percent VHAP by weight.

^cThe control device must operate at an efficiency that is equivalent to no greater than 1.0 kilogram (or 0.8 kilogram) of VHAP being emitted from the affected emission source per kilogram of solids used.

^dThere is no limit on the VHAP content of these adhesives.

^eThe control device must operate at an efficiency that is equivalent to no greater than 1.0 kilogram (or 0.2 kilogram) of VHAP being emitted from the affected emission source per kilogram of solids used.

[60 FR 62936, Dec. 7, 1995, as amended at 62 FR 30260, June 3, 1997]

TABLE 4.—POLLUTANTS EXCLUDED FROM USE IN CLEANING AND WASHOFF SOLVENTS

Chemical name	CAS No.
4-Aminobiphenyl	92671
Styrene oxide	96093
Diethyl sulfate	64675
N-Nitrosomorpholine	59892
Dimethyl formamide	68122
Hexamethylphosphoramide	680319
Acetamide	60355
4,4'-Methylenedianiline	101779
o-Anisidine	90040
2,3,7,8-Tetrachlorodibenzo-p-dioxin	1746016
Beryllium salts	
Benzidine	92875
N-Nitroso-N-methylurea	684935
Bis (chloromethyl) ether	542881
Dimethyl carbamoyl chloride	79447
Chromium compounds (hexavalent)	
1,2-Propylenimine (2-Methyl aziridine)	75558
Arsenic and inorganic arsenic compounds	9999904
Hydrazine	302012
1,1-Dimethyl hydrazine	57147
Beryllium compounds	7440417
1,2-Dibromo-3-chloropropane	96128
N-Nitrosodimethylamine	62759
Cadmium compounds	
Benzo (a) pyrene	50328
Polychlorinated biphenyls (Aroclors)	1336363
Heptachlor	76448
3,3'-Dimethyl benzidine	119937

TABLE 4.—POLLUTANTS EXCLUDED FROM USE IN CLEANING AND WASHOFF SOLVENTS—Continued

Chemical name	CAS No.
Nickel subsulfide	12035722
Acrylamide	79061
Hexachlorobenzene	118741
Chlordane	57749
1,3-Propane sultone	1120714
1,3-Butadiene	106990
Nickel refinery dust	
2-Acetylaminoflourine	53963
3,3'-Dichlorobenzidine	53963
Lindane (hexachlorocyclohexane, gamma)	58899
2,4-Toluene diamine	95807
Dichloroethyl ether (Bis(2-chloroethyl) ether)	111444
1,2-Diphenylhydrazine	122667
Toxaphene (chlorinated camphene)	8001352
2,4-Dinitrotoluene	121142
3,3'-Dimethoxybenzidine	119904
Formaldehyde	50000
4,4'-Methylene bis (2-chloroaniline)	101144
Acrylonitrile	107131
Ethylene dibromide (1,2-Dibromoethane)	106934
DDE (1,1-p-chlorophenyl 1-2 dichloroethylene) ...	72559
Chlorobenzilate	510156
Dichlorvos	62737
Vinyl chloride	75014
Coke Oven Emissions	
Ethylene oxide	75218
Ethylene thiourea	96457

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TABLE 4.—POLLUTANTS EXCLUDED FROM USE IN CLEANING AND WASHOFF SOLVENTS—Continued

Chemical name	CAS No.
Vinyl bromide (bromoethene)	593602
Selenium sulfide (mono and di)	7488564
Chloroform	67663
Pentachlorophenol	87865
Ethyl carbamate (Urethane)	51796
Ethylene dichloride (1,2-Dichloroethane)	107062
Propylene dichloride (1,2-Dichloropropane)	78875
Carbon tetrachloride	56235
Benzene	71432
Methyl hydrazine	60344
Ethyl acrylate	140885
Propylene oxide	75569
Aniline	62533
1,4-Dichlorobenzene(p)	106467
2,4,6-Trichlorophenol	88062
Bis (2-ethylhexyl) phthalate (DEHP)	117817
o-Toluidine	95534
Propoxur	114261
1,4-Dioxane (1,4-Diethyleneoxide)	123911
Acetaldehyde	75070
Bromoform	75252
Captan	133062
Epichlorohydrin	106898
Methylene chloride (Dichloromethane)	75092
Dibenz (ah) anthracene	53703
Chrysene	218019
Dimethyl aminoazobenzene	60117
Benzo (a) anthracene	56553
Benzo (b) fluoranthene	205992
Antimony trioxide	1309644

TABLE 4.—POLLUTANTS EXCLUDED FROM USE IN CLEANING AND WASHOFF SOLVENTS—Continued

Chemical name	CAS No.
2-Nitropropane	79469
1,3-Dichloropropene	542756
7, 12-Dimethylbenz(a) anthracene	57976
Benz(c) acridine	225514
Indeno(1,2,3-cd)pyrene	193395
1,2,7,8-Dibenzopyrene	189559

[63 FR 71382, Dec. 28, 1998]

TABLE 5.—LIST OF VHAP OF POTENTIAL CONCERN IDENTIFIED BY INDUSTRY

CAS No.	Chemical name	EPA de minimis, tons/yr
68122	Dimethyl formamide	1.0
50000	Formaldehyde	0.2
75092	Methylene chloride	4.0
79469	2-Nitropropane	1.0
78591	Isophorone	0.7
1000425	Styrene monomer	1.0
108952	Phenol	0.1
111422	Dimethanolamine	5.0
109864	2-Methoxyethanol	10.0
111159	2-Ethoxyethyl acetate	10.0

[63 FR 71382, Dec. 28, 1998]

TABLE 6.—VHAP OF POTENTIAL CONCERN

CAS No.	Chemical name	EPA de minimis, tons/yr*
92671	4-Aminobiphenyl	1.0
96093	Styrene oxide	1.0
64675	Diethyl sulfate	1.0
59892	N-Nitrosomorpholine	1.0
68122	Dimethyl formamide	1.0
680319	Hexamethylphosphoramide	0.01
60355	Acetamide	1.0
101779	4,4'-Methylenedianiline	1.0
90040	o-Anisidine	1.0
1746016	2,3,7,8-Tetrachlorodibenzo-p-dioxin	0.00000006
92875	Benzidine	0.00003
684935	N-Nitroso-N-methylurea	0.00002
542881	Bis(chloromethyl) ether	0.00003
79447	Dimethyl carbamoyl chloride	0.002
75558	1,2-Propylenimine (2-Methyl aziridine)	0.0003
57147	1,1-Dimethyl hydrazine	0.0008
96128	1,2-Dibromo-3-chloropropane	0.001
62759	N-Nitrosodimethylamine	0.0001
50328	Benzo (a) pyrene	0.001
1336363	Polychlorinated biphenyls (Aroclors)	0.0009
76448	Heptachlor	0.002
119937	3,3'-Dimethyl benzidine	0.001
79061	Acrylamide	0.002
118741	Hexachlorobenzene	0.004
57749	Chlordane	0.005
1120714	1,3-Propane sultone	0.003
106990	1,3-Butadiene	0.007
53963	2-Acetylaminofluorine	0.0005
91941	3,3'-Dichlorobenzidine	0.02
58899	Lindane (hexachlorocyclohexane, gamma)	0.005
95807	2,4-Toluene diamine	0.002
111444	Dichloroethyl ether (Bis(2-chloroethyl)ether)	0.006
122667	1,2-Diphenylhydrazine	0.009
8001352	Toxaphene (chlorinated camphene)	0.006

TABLE 6.—VHAP OF POTENTIAL CONCERN—Continued

CAS No.	Chemical name	EPA de mini- mis, tons/yr*
121142	2,4-Dinitrotoluene	0.002
119904	3,3'-Dimethoxybenzidine	0.01
50000	Formaldehyde	0.2
101144	4,4'-Methylene bis(2-chloroaniline)	0.02
107131	Acrylonitrile	0.03
106934	Ethylene dibromide(1,2-Dibromoethane)	0.01
72559	DDE (1,1-p-chlorophenyl 1-2 dichloroethylene)	0.01
510156	Chlorobenzilate	0.04
62737	Dichlorvos	0.02
75014	Vinyl chloride	0.02
75218	Ethylene oxide	0.09
96457	Ethylene thiourea	0.06
593602	Vinyl bromide (bromoethene)	0.06
67663	Chloroform	0.09
87865	Pentachlorophenol	0.07
51796	Ethyl carbamate (Urethane)	0.08
107062	Ethylene dichloride (1,2-Dichloroethane)	0.08
78875	Propylene dichloride (1,2-Dichloropropane)	0.1
56235	Carbon tetrachloride	0.1
71432	Benzene	0.2
140885	Ethyl acrylate	0.1
75569	Propylene oxide	0.5
62533	Aniline	0.1
106467	1,4-Dichlorobenzene(p)	0.3
88062	2,4,6-Trichlorophenol	0.6
117817	Bis (2-ethylhexyl) phthalate (DEHP)	0.5
95534	o-Toluidine	0.4
114261	Propoxur	2.0
79016	Trichloroethylene	1.0
123911	1,4-Dioxane (1,4-Diethyleneoxide)	0.6
75070	Acetaldehyde	0.9
75252	Bromoform	2.0
133062	Captan	2.0
106898	Epichlorohydrin	2.0
75092	Methylene chloride (Dichloromethane)	4.0
127184	Tetrachloroethylene (Perchloroethylene)	4.0
53703	Dibenz (ah) anthracene	0.01
218019	Chrysene	0.01
60117	Dimethyl aminoazobenzene	1.0
56553	Benzo (a) anthracene	0.01
205992	Benzo (b) fluoranthene	0.01
79469	2-Nitropropane	1.0
542756	1,3-Dichloropropene	1.0
57976	7,12-Dimethylbenz (a) anthracene	0.01
225514	Benz(c)acridine	0.01
193395	Indeno(1,2,3-cd)pyrene	0.01
189559	1,2:7,8-Dibenzopyrene	0.01
79345	1,1,2,2-Tetrachloroethane	0.03
91225	Quinoline	0.0006
75354	Vinylidene chloride (1,1-Dichloroethylene)	0.04
87683	Hexachlorobutadiene	0.09
82688	Pentachloronitrobenzene (Quintobenzene)	0.03
78591	Isophorone	0.7
79005	1,1,2-Trichloroethane	0.1
74873	Methyl chloride (Chloromethane)	1.0
67721	Hexachloroethane	0.5
1582098	Trifluralin	0.9
1319773	Cresols/Cresylic acid (isomers and mixture)	1.0
108394	m-Cresol	1.0
75343	Ethylidene dichloride (1,1-Dichloroethane)	1.0
95487	o-Cresol	1.0
106445	p-Cresol	1.0
74884	Methyl iodide (Iodomethane)	1.0
100425	Styrene	1.0
107051	Allyl chloride	1.0
334883	Diazomethane	1.0
95954	2,4,5—Trichlorophenol	1.0
133904	Chloramben	1.0
106887	1,2—Epoxybutane	1.0
108054	Vinyl acetate	1.0
126998	Chloroprene	1.0

TABLE 6.—VHAP OF POTENTIAL CONCERN—Continued

CAS No.	Chemical name	EPA de minimis, tons/yr*
123319	Hydroquinone	1.0
92933	4-Nitrobiphenyl	1.0
56382	Parathion	0.1
13463393	Nickel Carbonyl	0.1
60344	Methyl hydrazine	0.006
151564	Ethylene imine	0.0003
77781	Dimethyl sulfate	0.1
107302	Chloromethyl methyl ether	0.1
57578	beta-Propiolactone	0.1
100447	Benzyl chloride	0.04
98077	Benzotrichloride	0.0006
107028	Acrolein	0.04
584849	2,4—Toluene diisocyanate	0.1
75741	Tetramethyl lead	0.01
78002	Tetraethyl lead	0.01
12108133	Methylcyclopentadienyl manganese	0.1
624839	Methyl isocyanate	0.1
77474	Hexachlorocyclopentadiene	0.1
62207765	Fluorine	0.1
10210681	Cobalt carbonyl	0.1
79118	Chloroacetic acid	0.1
534521	4,6-Dinitro-o-cresol, and salts	0.1
101688	Methylene diphenyl diisocyanate	0.1
108952	Phenol	0.1
62384	Mercury, (acetato-o) phenyl	0.01
98862	Acetophenone	1.0
108316	Maleic anhydride	1.0
532274	2-Chloroacetophenone	0.06
51285	2,4-Dinitrophenol	1.0
109864	2-Methoxy ethanol	10.0
98953	Nitrobenzene	1.0
74839	Methyl bromide (Bromomethane)	10.0
75150	Carbon disulfide	1.0
121697	N,N-Dimethylaniline	1.0
106514	Quinone	5.0
123386	Propionaldehyde	5.0
120809	Catechol	5.0
85449	Phthalic anhydride	5.0
463581	Carbonyl sulfide	5.0
132649	Dibenzofurans	5.0
100027	4-Nitrophenol	5.0
540841	2,2,4-Trimethylpentane	5.0
111422	Diethanolamine	5.0
822060	Hexamethylene-1,6-diisocyanate	5.0
	Glycol ethers ^a	5.0
	Polycyclic organic matter ^b	0.01

*These values are based on the de minimis levels provided in the proposed rulemaking pursuant to section 112(g) of the Act using a 70-year lifetime exposure duration for all VHAP. Default assumptions and the de minimis values based on inhalation reference doses (RfC) are not changed by this adjustment.

^aExcept for ethylene glycol butyl ether, ethylene glycol ethyl ether (2-ethoxy ethanol), ethylene glycol hexyl ether, ethylene glycol methyl ether (2-methoxyethanol), ethylene glycol phenyl ether, ethylene glycol propyl ether, ethylene glycol mono-2-ethylhexyl ether, diethylene glycol butyl ether, diethylene glycol ethyl ether, diethylene glycol methyl ether, diethylene glycol hexyl ether, diethylene glycol phenyl ether, diethylene glycol propyl ether, triethylene glycol butyl ether, triethylene glycol ethyl ether, triethylene glycol methyl ether, triethylene glycol propyl ether, ethylene glycol butyl ether acetate, ethylene glycol ethyl ether acetate, and diethylene glycol ethyl ether acetate.

^bExcept for benzo(b)fluoranthene, benzo(a)anthracene, benzo(a)pyrene, 7,12-dimethylbenz(a)anthracene, benz(c)acridine, chrysene, dibenz(ah)anthracene, 1,2,7,8-dibenzopyrene, indeno(1,2,3-cd)pyrene, but including dioxins and furans.

[63 FR 71383, Dec. 28, 1998]

Subpart KK—National Emission Standards for the Printing and Publishing Industry

SOURCE: 61 FR 27140, May 30, 1996, unless otherwise.

§ 63.820 Applicability.

(a) The provisions of this subpart apply to:

(1) Each new and existing facility that is a major source of hazardous air pollutants (HAP), as defined in 40 CFR 63.2, at which publication rotogravure,